

=&gt; FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 16:00:22 ON 23 JAN 2003

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FILE COVERS 1907 - 23 Jan 2003 VOL 138 ISS 4

FILE LAST UPDATED: 22 Jan 2003 (20030122/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; D QUE L30

L1	62130	SEA FILE=REGISTRY ABB=ON	PUR/PCT
L2	67	SEA FILE=REGISTRY ABB=ON	L1 AND TRI(W)ISOCYAN?
L3	2151203	SEA FILE=REGISTRY ABB=ON	(C(L)O(L)H)/ELS(L)3/ELC.SUB
L4	302378	SEA FILE=REGISTRY ABB=ON	L3 AND 1/O
L5	111060	SEA FILE=REGISTRY ABB=ON	L4 AND OL
L6	59640	SEA FILE=REGISTRY ABB=ON	L5 AND 12-24/C
L7	9047	SEA FILE=REGISTRY ABB=ON	L6 NOT 1-40/NR
L9	88	SEA FILE=HCAPLUS ABB=ON	L2
L10	7736	SEA FILE=REGISTRY ABB=ON	L7 NOT PMS/CI
L11	7279	SEA FILE=REGISTRY ABB=ON	L10 AND 1/NC
L12	30728	SEA FILE=HCAPLUS ABB=ON	L11
L13	0	SEA FILE=HCAPLUS ABB=ON	L9 AND L12
L15	9	SEA FILE=HCAPLUS ABB=ON	L12 AND TRIISOCYAN?
L16	79375	SEA FILE=HCAPLUS ABB=ON	POLYURETHANE?/IT
L17	306	SEA FILE=HCAPLUS ABB=ON	L16 AND L12
L18	76	SEA FILE=HCAPLUS ABB=ON	L17 AND (?ETHOXYLAT? OR ?ETHYLEN? OXIDE? OR ?OXYETHYLEN?)
L19	103	SEA FILE=HCAPLUS ABB=ON	L17 AND ?OXYALKYL?
L20	146	SEA FILE=HCAPLUS ABB=ON	L13 OR L15 OR L18 OR L19
L22	11	SEA FILE=HCAPLUS ABB=ON	L20 AND TEXTILE?/SC,SX
L23	0	SEA FILE=HCAPLUS ABB=ON	L9 AND ALCOHOLS/IT
L24	2	SEA FILE=HCAPLUS ABB=ON	L9 AND TEXTILE?/SC,SX
L25	13	SEA FILE=HCAPLUS ABB=ON	(L22 OR L23 OR L24)
L26	10090	SEA FILE=HCAPLUS ABB=ON	?ISOCYANAT? AND (L12 OR ALCOHOL#)
L27	1425	SEA FILE=HCAPLUS ABB=ON	L26 AND (?ETHOXYLAT? OR ?ETHYLEN? OCIDE? OR ?OXYETHYLEN? OR ?OXYALKYL?)
L28	94	SEA FILE=HCAPLUS ABB=ON	L27 AND TEXTILE?/SC,SX
L29	27	SEA FILE=HCAPLUS ABB=ON	L28 AND FINISH?
L30	37	SEA FILE=HCAPLUS ABB=ON	L25 OR L29

=&gt; FILE WTEX

FILE 'WTEXTILES' ENTERED AT 16:01:06 ON 23 JAN 2003

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FILE LAST UPDATED: 16 JAN 2003 <20030116/UP>  
FILE COVERS 1970 TO DATE.

=> D QUE L34

L32 3199 SEA FILE=WTEXTILES ABB=ON (POLYURETHAN? OR TRIISOCYAN? OR  
POLYISOCYAN?)

L33 75 SEA FILE=WTEXTILES ABB=ON L32 AND ALCOHOL?

L34 11 SEA FILE=WTEXTILES ABB=ON L33 AND FINISH?

=> FILE TEXTIL

FILE 'TEXTILETECH' ENTERED AT 16:01:23 ON 23 JAN 2003  
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FILE LAST UPDATED: 7 JAN 2003 <20030107/UP>  
FILE COVERS 1978 TO DATE.

=> D QUE L35

L32 3199 SEA FILE=WTEXTILES ABB=ON (POLYURETHAN? OR TRIISOCYAN? OR  
POLYISOCYAN?)

L33 75 SEA FILE=WTEXTILES ABB=ON L32 AND ALCOHOL?

L35 15 SEA FILE=TEXTILETECH ABB=ON L33 AND FINISH?

=> DUP REM L30 L34 L35

FILE 'HCAPLUS' ENTERED AT 16:01:45 ON 23 JAN 2003  
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FILE 'TEXTILETECH' ENTERED AT 16:01:45 ON 23 JAN 2003  
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PROCESSING COMPLETED FOR L30  
PROCESSING COMPLETED FOR L34  
PROCESSING COMPLETED FOR L35  
L36 63 DUP REM L30 L34 L35 (0 DUPLICATES REMOVED)

=> D L36 ALL 1-63 HITSTR

L36 ANSWER 1 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:575578 HCAPLUS

DN 137:141779

TI Water dispersible **finishing** compositions for fibrous substrates

IN Kwong, Gary W.; Johnson, Mitchell T.; Burleigh, Malcolm B.

PA 3m Innovative Properties Company, USA

SO U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM B32B027-04

ICS B32B033-00

NCL 428096000

CC 40-9 (**Textiles** and Fibers)

Section cross-reference(s): 42

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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PI US 2002102382 A1 20020801 US 2000-728857 20001201  
 PRAI US 2000-728857 20001201

AB Water dispersible **finishing** compns. for fibrous substrates including fibers, fabrics, carpets, nonwoven webs, and the like, can impart to the fibrous substrate soil resistance preferably stain resistance and a range of hydrophilic properties from water repellency to water absorbency. The invention also relates to methods for treating fibrous substrates with the **finishing** compns. of this invention. The compns. can be applied to the substrate and subsequently cured at ambient temp. or above.

ST fiber **finishing** agent polyurethane polyether

IT **Alcohols**, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (C12-15, **ethoxylated**, polymers with Desmodur N 75BA, reaction products with stearyl **alc.**; water dispersible **finishing** compns. for fibrous substrates)

IT **Alcohols**, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (C14-15, **ethoxylated**, Tomadol 45-13, polymers with Desmodur N 75BA, reaction products with stearyl **alc.**; water dispersible **finishing** compns. for fibrous substrates)

IT **Polyurethanes**, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyether-; water dispersible **finishing** compns. for fibrous substrates)

IT Carpets  
 Coating materials  
 Textiles  
 (water dispersible **finishing** compns. for fibrous substrates)

IT Nonwoven fabrics  
 (webs; water dispersible **finishing** compns. for fibrous substrates)

IT 34398-01-1DP, Polyethylene glycol undecyl ether, polymers with Desmodur N 75BA, reaction products with stearyl **alc.**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (Tomadol 1-9; water dispersible **finishing** compns. for fibrous substrates)

IT 444575-95-5, FC 672  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (stain blocker; water dispersible **finishing** compns. for fibrous substrates)

IT 113095-83-3DP, Desmodur N 75BA, polymers with Tomadol 25-12, reaction products with stearyl **alc.** 444312-93-ODP, reaction products with stearyl **alc.** 444312-94-1DP, reaction products with stearyl **alc.**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (water dispersible **finishing** compns. for fibrous substrates)

IT 112-92-5DP, Stearyl **alcohol**, reaction products with unreacted **isocyanate** in **polyurethane** 114690-39-ODP, reaction products with stearyl **alc.**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water dispersible **finishing** compns. for fibrous substrates)  
 IT 25685-29-4P, Ethyl methacrylate-methyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
 (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (water dispersible **finishing** compns. for fibrous substrates)  
 IT 112-92-5DP, Stearyl alcohol, reaction products with  
 unreacted **isocyanate** in **polyurethane**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
 (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)  
 (water dispersible **finishing** compns. for fibrous substrates)  
 RN 112-92-5 HCAPLUS  
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 2 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:607670 HCAPLUS  
 DN 137:156185  
 TI Thickening and viscosity-controlling agents, and aqueous polyurethane  
 coatings, paints, adhesives, and fiber-treating agents containing them  
 IN Goda, Tetsuya; Hagiwara, Yuji; Komiya, Kaoru  
 PA Asahi Denka Kogyo K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08G018-48  
 ICS C09D175-00; C09D175-08; C09J175-00; C09J175-08; D06M015-568  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 37, 38, 40

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002226542	A2	20020814	JP 2001-21799	20010130
PRAI	JP 2001-21799		20010130		

AB Aq. polyurethanes for paints, coatings, adhesives, and fiber-treatment  
 agents contain thickeners shown as R1[(OR2)kOCONHR3[NHCO2(R4O)nR5]h]m,  
 R7[(OR8)yOCONHR6]x, R9[NHCO(OR11)bOR10]a, or R19[(OR20)pOCONHR21(NHCOX)r]s  
 [R1, R2, R4, R6-R8, R9-R11, R19, R20 = hydrocarbyl; R3, R21 =  
 (urethane-contg.) hydrocarbylene; R5 = hydrocarbyl, (substituted) Ph; X =  
 NR22R23, (OR24)tOR25; R22-R25 = hydrocarbyl; m, s .gtoreq.2; h, r  
 .gtoreq.1; k, n = 0-500; x = 1-2; y, b = 1-1000; a = 2-4; t, p .gtoreq.0].  
 Thus, a reaction of PEG 6000 (polyethylene glycol) 696,  
**ethoxylated** C12 branched **alc.** 243.6, and hydrogenated  
 MDI 60.8 parts gave a thickener, 1 part of which was blended with 100  
 parts Adeka Bon-Tighter HUX 232 (polyurethane) and 0.5 parts foam  
 stabilizer to give a compn. with good storage stability.  
 ST thickener alkoxylated **polyisocyanate** aq polyurethane storage  
 stability; viscosity controller aq polyurethane coating paint adhesive  
 fiber treatment; hydrogenated MDI polyethylene glycol ether thickener  
 polyurethane  
 IT **Finishing**  
 (agent for fibers; alkoxylated **polyisocyanate** thickening and  
 viscosity-controlling agents for aq. polyurethane coatings, paints,  
 adhesives, and fiber-treating agents)  
 IT Adhesives

- Thickening agents  
(alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT Polyurethanes, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT Paints  
(emulsions; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT **Alcohols**, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(**ethoxylated**, hydrogenated MDI adduct, thickener; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT Emulsions  
(paints; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT Coating materials  
(water-thinned; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT 40021-82-7DP, ether with nonylphenol or dilaurylamine  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT 133516-65-1, Adeka Bon-Tighter HUX 232 216863-89-7, Adeka Bon-Tighter HUX 240  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(paint component; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT 13463-67-7, Titania, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(paint component; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)
- IT 100-42-5DP, Styrene, compd. with phenol and **ethoxylated** hydrogenated MDI 108-95-2DP, Phenol, compd. with styrene and **ethoxylated** hydrogenated MDI 3007-31-6DP, Dilaurylamine, compd. with nonylphenol and **ethoxylated** HDI 25154-52-3DP, Nonylphenol, compd. with dilaurylamine and **ethoxylated** HDI 40021-85-0DP, alkyl or styrylphenyl ethers 137077-09-9DP, alkyl ethers 138177-27-2DP, alkyl ethers 445389-38-8P 445389-40-2P 445389-76-4P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(thickener; alkoxylated **polyisocyanate** thickening and viscosity-controlling agents for aq. polyurethane coatings, paints, adhesives, and fiber-treating agents)

L36 ANSWER 3 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:503673 HCAPLUS

DN 137:80238

TI Polycarbodimides and their manufacture and applications

IN Shimanaka, Hiroyuki; Kawamura, Tatsuo; Ishimizu, Toshio; Bisaitsu, Iwao; Oura, Toru; Toyama, Mitsuo; Nakamura, Michimori

PA Dainichiseika Color and Chemical Mfg. Co., Ltd., Japan; Ukima Gosei K. K.

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G018-82

ICS C09D011-00; C09D175-04; C09D179-00; C09J175-04; C09J179-00

CC 40-6 (Textiles and Fibers)

Section cross-reference(s): 35, 38, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002187932	A2	20020705	JP 2000-385758	20001219
PRAI	JP 2000-385758		20001219		
AB	The polycarbodiimides, having Mn of 300-100,000 and general structures AXR[N:C:NR(XYXR)m]nN:C:NRXA (R = arom. <b>isocyanate</b> residue; X = urethane linkage; Y = diol residue, A = monohydric <b>alc.</b> residue; m = 1-20; n = 1-30), are manufd. by reactions of arom. <b>diisocyanates</b> with diols and monoalcs. and carbodiimination of the resulting prepolymers having one or two NCO end groups. The polycarbodiimides are useful for adhesives, coatings, textile <b>finishing</b> agents, printing inks, and textile printing agents. Thus, a polycarbodiimide was manufd. from a reaction product of 2,4-TDI-2,6-TDI-butanediol copolymer with polyethylene glycol monomethyl ether. Then, a polyester textile was printed with a compn. contg. 20 parts Et acrylate-styrene-acrylic acid copolymer latex, 5 parts of the polycarbodiimide, and 5 parts water dispersion of phthalocyanine blue and dried to give a test piece showing good wash and friction fastness and yellowing resistance.				
ST	crosslinking agent polycarbodiimide polyester textile printing; TDI butanediol copolymer polycarbodiimide <b>polyoxyalkylene</b> crosslinking agent; polycarbodiimide crosslinked acrylic polymer textile printing; textile <b>finishing</b> polycarbodiimide crosslinking agent; adhesive polycarbodiimide crosslinking agent; printing ink polycarbodiimide crosslinking agent; coating polycarbodiimide crosslinking agent				
IT	Acrylic rubber RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic acid-Bu acrylate, waterproofing agents for textile; manuf. of polycarbodimides as crosslinking agents for)				
IT	Fabric <b>finishing</b> Textile printing (agents; manuf. of polycarbodimides as crosslinking agents for)				
IT	Automobiles (bumpers; manuf. of polycarbodimides as crosslinking agents for coatings on)				
IT	Polyester fibers, uses RL: TEM (Technical or engineered material use); USES (Uses) (fabrics; manuf. of polycarbodimides as crosslinking agents for printing agents for)				
IT	Polishing materials (floor; manuf. of polycarbodimides as crosslinking agents for)				
IT	Inks				

- (gravure, water-thinned; manuf. of polycarbodimides as crosslinking agents for)
- IT Floors  
Wood  
(manuf. of polycarbodimides as crosslinking agents for coatings on)
- IT Metals, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(manuf. of polycarbodimides as crosslinking agents for coatings on)
- IT Polyurethanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polyamine-**polyoxyalkylene**-polyurea-, water-thinned adhesives; manuf. of polycarbodimides as crosslinking agents for)
- IT Polyureas  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polyamine-**polyoxyalkylene**-polyurethane-, water-thinned adhesives; manuf. of polycarbodimides as crosslinking agents for)
- IT **Polyoxyalkylenes**, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polyamine-polyurea-polyurethane-, water-thinned adhesives; manuf. of polycarbodimides as crosslinking agents for)
- IT **Polyoxyalkylenes**, uses  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(polycarbodiimide-, block; manuf. of polycarbodimides as crosslinking agents)
- IT **Polyoxyalkylenes**, uses  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(polycarbodiimide-polyurea-; manuf. of polycarbodimides as crosslinking agents)
- IT Polyurethanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polycarbonate-, carboxy-contg., floor coatings; manuf. of polycarbodimides as crosslinking agents for)
- IT Polycarbodiimides  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(**polyoxyalkylene**-, block; manuf. of polycarbodimides as crosslinking agents)
- IT Polyureas  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(**polyoxyalkylene**-polycarbodiimide-; manuf. of polycarbodimides as crosslinking agents)
- IT Polycarbodiimides  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(**polyoxyalkylene**-polyurea-; manuf. of polycarbodimides as crosslinking agents)
- IT Polyamines  
RL: POF (Polymer in formulation); TEM (Technical or engineered material

- use); USES (Uses)  
 (polyoxyalkylene-polyurea-polyurethane-, water-thinned  
 adhesives; manuf. of polycarbodimides as crosslinking agents for)
- IT Polycarbonates, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (polyurethane-, carboxy-contg., floor coatings; manuf. of  
 polycarbodimides as crosslinking agents for)
- IT Coating materials  
 (water-resistant; manuf. of polycarbodimides as crosslinking agents  
 for)
- IT Adhesives  
 (water-thinned; manuf. of polycarbodimides as crosslinking agents for)
- IT 25135-39-1, Acrylic acid-ethyl acrylate-methyl methacrylate copolymer  
 198636-04-3, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic  
 acid-methyl methacrylate-octyl methacrylate copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (coatings; manuf. of polycarbodimides as crosslinking agents for)
- IT 29035-81-2, Acrylic acid-vinyl acetate-vinyl chloride copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (gravure ink; manuf. of polycarbodimides as crosslinking agents for)
- IT 67-63-ODP, Isopropanol, reaction products with diethylpentanediol-TDI  
 copolymer, carbodiimide deriv. 104-76-7DP, 2-Ethylhexanol, reaction  
 products with methylpentanediol-TDI copolymer, carbodiimide deriv.  
 2855-13-2DP, Isophoronediamine, polymer with polycarbodiimide-polyurethane  
 9004-74-4DP, Polyethylene glycol monomethyl ether, reaction products with  
 polyurethanes, carbodiimide derivs. 24969-33-3DP, Ethylene  
 glycol-2,4-TDI copolymer, reaction product with polyethylene glycol  
 monomethyl ether and butanol, carbodiimide deriv. 25867-01-ODP,  
 1,4-Butanediol-2,4-TDI copolymer, reaction product with polyethylene  
 glycol monomethyl ether and isopropanol, carbodiimide deriv., polymer with  
 isophoronediamine 30022-91-4DP, 1,4-Butanediol-2,4-TDI-2,6-TDI  
 copolymer, reaction product with polyethylene glycol monomethyl ether,  
 carbodiimide deriv. 35296-72-1DP, Butanol, reaction products with  
 polyurethanes, carbodiimide derivs. 439900-69-3DP, Ethylene  
 glycol-2,4-TDI-2,6-TDI copolymer, reaction product with polyethylene  
 glycol monomethyl ether and butanol, carbodiimide deriv. 439900-70-6DP,  
 Kyowadiol PD 9-2,4-TDI-2,6-TDI copolymer, reaction product with  
 polyethylene glycol monomethyl ether and isopropanol, carbodiimide deriv.  
 439900-71-7DP, 3-Methyl-1,5-pentanediol-2,4-TDI copolymer, reaction  
 product with ethylhexanol, carbodiimide deriv.  
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or  
 engineered material use); PREP (Preparation); RACT (Reactant or reagent);  
 USES (Uses)  
 (manuf. of polycarbodimides as crosslinking agents)
- IT 9003-07-0, Polypropylene  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of polycarbodimides as crosslinking agents for adhesives on  
 films comprising)
- IT 9002-86-2, Vinyl chloride homopolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of polycarbodimides as crosslinking agents for coatings on  
 floors comprising)
- IT 25585-77-7, Acrylic acid-ethyl acrylate-styrene copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (textile printing agents; manuf. of polycarbodimides as crosslinking  
 agents for)



IT 439900-72-8, Diethylenetriamine-dimethylolpropionic acid-isophorone  
**diisocyanate**-polytetramethylene glycol copolymer triethylamine  
 salt  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (water-thinned adhesives; manuf. of polycarbodimides as crosslinking  
 agents for)

IT 25215-62-7, Monobutyl maleate-styrene copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (water-thinned gravure ink; manuf. of polycarbodimides as crosslinking  
 agents for)

L36 ANSWER 4 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:246598 HCAPLUS

DN 134:282087

TI Compositions for the oil- and waterproof **finishing** of textile  
 materials

IN Dirschl, Franz; Ludemann, Simpert; Schidek, Edeltraud; Artner, Wilhelm;  
 Gaugenrieder, Heinz

PA Ciba Spezialitatenchemie Pfersee G.m.b.H., Germany

SO Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C09D167-00

ICS C08L067-00

CC 40-9 (**Textiles** and Fibers)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1088867	A1	20010404	EP 1999-119417	19990930
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1088929	A1	20010404	EP 2000-120507	20000920
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6387999	B1	20020514	US 2000-669466	20000925
	JP 2001146548	A2	20010529	JP 2000-296423	20000928
	CN 1290780	A	20010411	CN 2000-129067	20000929
	BR 2000004536	A	20010529	BR 2000-4536	20000929
PRAI	EP 1999-119417	A	19990930		
	DE 2000-10028050	A	20000606		
AB	Compns. for oil- and waterproof <b>finishes</b> having improved resistance to removal by rubbing on textiles contain perfluoroalkyl group-contg. esters prepd. from aliph. diacids and aliph. diols, oligo- or polyurethanes optionally having perfluoroalkyl groups prepd. from similar aliph. diols used to prep. the above esters, nonionic dispersants, and, optionally, .gtoreq.1 of perfluoroalkyl group-contg. acrylic polymers, blocked <b>polyisocyanates</b> and propylene glycol.				
ST	abrasion resistant oilproof <b>finish</b> textile perfluoroalkyl aliph ester; nonionic dispersant abrasion resistant <b>finish</b> textile; propylene glycol abrasion resistant oilproof waterproof <b>finish</b> textile; <b>polyisocyanate</b> blocked abrasion resistant oilproof waterproof <b>finish</b> textile; waterproof abrasion resistant <b>finish</b> textile perfluoroalkyl polyurethane				
IT	Fluoropolymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (acrylic; compns. for the oil- and waterproof <b>finishes</b> with improved resistance to removal by rubbing on textiles)				

- IT Oilproofing agents  
Waterproofing agents  
(compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Acrylic fibers, miscellaneous  
RL: MSC (Miscellaneous)  
(compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Textiles  
(cotton; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT **Alcohols**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**ethoxylated**; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Rayon, miscellaneous  
RL: MSC (Miscellaneous)  
(fabrics; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Polyesters, uses  
Polyurethanes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluorine-contg.; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Acrylic polymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorine-contg.; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Dispersing agents  
(nonionic; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Textiles  
(polyester-wool; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyurethane-; compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT 96-29-7DP, reaction products with NCO-contg. polyurethanes 105-59-9DP, N-Methyldiethanolamine, perfluoroalkyl group-contg. polyurethanes 627-93-0DP, Dimethyl adipate, polymers with perfluoroalkyl group-contg. aliph. diols 9081-90-7DP, Desmodur L75, reaction products with butanone oxime 28679-16-5DP, perfluoroalkyl group-contg. polyurethanes 39340-26-6DP, DDI 1410, perfluoroalkyl group-contg. polyurethanes 169811-49-8DP, perfluoroalkyl group-contg., polymers with di-Me adipate  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(compns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)
- IT 57-55-6, Propylene glycol, uses 9043-30-5, **Ethoxylated** isotridecanol  
RL: TEM (Technical or engineered material use); USES (Uses)

(compsns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)

IT 25014-41-9, Polyacrylonitrile  
RL: MSC (Miscellaneous)

(fabrics; compsns. for the oil- and waterproof **finishes** with improved resistance to removal by rubbing on textiles)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bayer Ag; DE 4113891 A 1992 HCAPLUS
- (2) Ciba Geigy Ag; EP 0690039 A 1996 HCAPLUS
- (3) Minnesota Mining & Mfg; EP 0113217 A 1984 HCAPLUS

L36 ANSWER 5 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology

AN 644400 TEXTILETECH

DN 200104449

TI Functional Coatings.

AU Holme I.

SO African Textiles, No. 1: 20+, 2 pages (2001).

CODEN: ATEXDN

DT Journal

LA English

AB Air and water vapor permeable waterproof breathable coatings improve apparel comfort. Microporous coatings and hydraulic coatings are waterproof and breathable. Microporous coatings have a physical pore structure characterized by interconnected channels. The minute pore size allows water vapor molecules to pass through but blocks large rain drops. Wet coagulation, thermocoagulation, and foam coating processes manufacture microporous coated fabrics. Hydrophilic coatings consist of **polyurethane** chemically modified to incorporate hydrophilic groups based on polyethylene oxides or polyvinyl **alcohols**. Hydrophilic coatings form solid coatings with no microporous structure. The hydrophilic groups absorb individual water molecules and diffuse them through the coating to the surface where they evaporate.

CC D3 Chemical **finishing**

SH 0770 COATED FABRICS: air permeability, coatings, diffusion, evaporation, foams, hydrophilic, polyethylene oxide, **polyurethanes**, polyvinyl **alcohol**, sorption, water permeability

CT AIR; AIR PERMEABILITY; **ALCOHOLS**; APPAREL; CHARACTER; CHEMICAL MODIFICATION; COAGULATING; COATED FABRICS; COATING; COATINGS; COMFORT; DIFFUSION; ETHYLENE; ETHYLENE OXIDE; EVAPORATION; FABRICS; FOAMS; HYDROPHILIC; MANUFACTURING; MODIFICATIONS; OXIDES; PERMEABILITY; PHOTOGRAPHS; POLYETHYLENE; **POLYURETHANES**; POLYVINYL **ALCOHOL**; POROSITY; SOLIDS; SORPTION; TEXTILE CHEMICALS; WATER; WATER PERMEABILITY; WATER RESISTANCE; WATER VAPOR; WATERPROOFING; WET TREATMENT; YIELD

L36 ANSWER 6 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:707356 HCAPLUS

DN 133:282979

TI Production and use of **finishes** for textiles

IN Meier, Helmut-Martin; Kummeler, Ferdinand; Kierspe, Detlev; Selinger, Peter; Dijks, Jacob-Cornelis; Guth, Winfried

PA Bayer Aktiengesellschaft, Germany

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM D06M015-564

ICS D06M013-148; D06M013-17; D06M013-224; D06M013-372; D06M013-368; D06M013-46; D06M015-643; D06M015-227

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000058547	A1	20001005	WO 2000-EP2331	20000316
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 19914299	A1	20001005	DE 1999-19914299	19990329
	DE 19960107	A1	20010621	DE 1999-19960107	19991214
	EP 1171663	A1	20020116	EP 2000-910847	20000316
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002541339	T2	20021203	JP 2000-608823	20000316
PRAI	DE 1999-19914299	A	19990329		
	DE 1999-19960107	A	19991214		
	WO 2000-EP2331	W	20000316		
OS	MARPAT 133:282979				
AB	Self-curing <b>finishes</b> giving textiles good hand, hydrophilicity, and smoothness are prepd. by mixing, in 0.1-5:1 ratio, mixts. of polyols (reaction products of HCHO with ketones bearing .gtoreq.4 H atoms adjacent to carbonyl groups) 0-30, other polyols 0-30, reaction products of 2-100 mol ethylene oxide with fatty acids, fatty alcs., di(fatty alkyl)amines, or alkylphenols 0.1-10, and softening agents 70-99.9% with bisulfite-blocked <b>polyisocyanate</b> prepolymers. A suitable <b>finish</b> contained 25% softener [aq. dispersion of quaternized (aminoethyl)ethanolamine fatty acid esters, di-Me polysiloxanes, 2:2:1 stearic acid-AcOH-triethylenetetramine reaction products, polyethylene wax, preservative, and additives]; 25% soln. of 4-hydroxytetrahydropyran-3,3,5,5-tetramethanol 56.1, <b>ethoxylated</b> (d.p. 19) oleyl <b>alc.</b> 5.1, and H2O 38.8%; and 50.0% reaction product of polyether polyol ( <b>ethoxylated</b> -propoxylated ethylenediamine) 1.55, HMDI 4.65, and NaHSO3 3.88 mol.				
ST	textile <b>finish</b> self curing; softener fabric textile <b>finish</b> ; hydroxytetrahydropyran-tetramethanol <b>finish</b> textile; HMDI urethane blocked <b>finish</b> textile; polyamine polyol urethane <b>finish</b> textile				
IT	Fatty acids, uses RL: TEM (Technical or engineered material use); USES (Uses) (C12-22, <b>ethoxylated</b> ; prodn. and use of <b>finishes</b> for textiles)				
IT	Phenols, uses RL: TEM (Technical or engineered material use); USES (Uses) (C9-24-alkyl, <b>ethoxylated</b> ; prodn. and use of <b>finishes</b> for textiles)				
IT	Amines, uses RL: TEM (Technical or engineered material use); USES (Uses) (di-C12-36-alkyl, <b>ethoxylated</b> ; prodn. and use of <b>finishes</b> for textiles)				
IT	<b>Alcohols</b> , uses RL: TEM (Technical or engineered material use); USES (Uses) (fatty, C8-18, <b>ethoxylated</b> ; prodn. and use of <b>finishes</b> for textiles)				
IT	Textiles				

- (**finishes**; prodn. and use of **finishes** for textiles)
- IT Carbohydrates, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hydroxyl group-contg.; prodn. and use of **finishes** for textiles)
- IT Polyurethanes, uses  
Polyurethanes, uses  
Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyamine-polyoxyalkylene-, blocked; prodn. and use of **finishes** for textiles)
- IT Polyoxyalkylenes, uses  
Polyoxyalkylenes, uses  
Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyamine-polyurethane-, blocked; prodn. and use of **finishes** for textiles)
- IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyhydric; prodn. and use of **finishes** for textiles)
- IT Polyamines  
Polyamines  
Polyamines  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyoxyalkylene-polyurethane-, blocked; prodn. and use of **finishes** for textiles)
- IT Antistatic agents  
Fabric softeners  
Wetting agents  
(prodn. and use of **finishes** for textiles)
- IT Quaternary ammonium compounds, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(prodn. and use of **finishes** for textiles)
- IT Ketones, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(reaction products with formaldehyde; prodn. and use of **finishes** for textiles)
- IT Amines, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(tallow alkyl, **ethoxylated**; prodn. and use of **finishes** for textiles)
- IT 50-00-0D, Formaldehyde, reaction products with ketones, uses 50-99-7, Glucose, uses 56-81-5, 1,2,3-Propanetriol, uses 75-21-8D, Ethylene oxide, reaction products with ethylenediamine, blocked urethanes 75-56-9D, Propylene oxide, reaction products with ethylenediamine, blocked urethanes 77-99-6, Trimethylolpropane 107-15-3D, Ethylenediamine, alkoxyated, reaction products with HMDI and Na bisulfite 107-21-1, 1,2-Ethanediol, uses 111-46-6, uses 112-27-6 115-77-5, uses 126-30-7 126-58-9, Dipentaerythritol 822-06-0D, HMDI, reaction products with polyamine polyols and Na bisulfite 4744-47-2 5416-55-7 6948-40-9 7631-90-5D, Sodium bisulfite, reaction products with **isocyanatourethanes** 9004-96-0, Polyethylene glycol monooleate 9004-98-2, Polyethylene glycol monooleyl ether 9005-00-9, Polyethylene glycol monostearyl ether 25618-55-7, Polyglycerol 39163-81-0 59113-36-9, Diglycerol 91761-84-1 278615-56-8 278615-57-9 299931-41-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(prodn. and use of **finishes** for textiles)
- RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Bayer Ag; DE 2414470 A 1975 HCAPLUS
- (2) Bayer Ag; EP 0075770 A 1983 HCAPLUS
- (3) Behler, A; WO 9905246 A 1999 HCAPLUS
- (4) Christie, N; US 4531946 A 1985 HCAPLUS
- (5) Ciba Geigy Ag; EP 0696661 A 1996 HCAPLUS
- (6) Sandoz Ltd; EP 0641833 A 1995 HCAPLUS

L36 ANSWER 7 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:493284 HCAPLUS

DN 133:106272

TI Soil-resistant spin **finish** compositions

IN Kamrath, Robert F.; Lockridge, James E.; Hauser, Edward R.; Dunsmore, Irvin F.; Jariwala, Chetan P.; Franchina, Nicole L.; Alm, Roger R.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA English

IC D06M013-18

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000041500	A2	20000720	WO 1999-US10368	19990511
	WO 2000041500	A3	20010215		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9940750	A1	20000801	AU 1999-40750	19990511
	EP 1144751	A2	20011017	EP 1999-924187	19990511
	R:	BE, DE, FR, GB, NL			
	JP 2002534618	T2	20021015	JP 2000-593123	19990511
PRAI	US 1999-228460	A	19990111		
	WO 1999-US10368	W	19990511		
AB	A soil-resistant spin <b>finish</b> compn. based on select derivatized polyethers is provided that can be applied to a fiber at the earliest stages of spinning, can remain on the fiber through the entire manufg. process, and can be left on the fiber in the the final article of commerce. The spin <b>finish</b> compn. provides excellent fiber lubrication during high-speed spin processing, yet is sufficiently soil resistant to negate the need for scouring the final fiber construction, even without the presence of addnl. coatings or agents.				
ST	polyether spin <b>finish</b> compn; lubricant <b>finish</b> textile				
IT	<b>Alcohols</b> , uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (C8-16, .gamma.-.omega.-perfluoro, Zonyl BA-N, reaction products with polyethylene glycol biscarboxymethyl Me ether; soil-resistant spin <b>finish</b> compns.)				
IT	<b>Fabric finishing</b> (agents; soil-resistant spin <b>finish</b> compns.)				
IT	Polyethers, uses				
	Polypropene fibers, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (soil-resistant spin <b>finish</b> compns.)				

IT **Polyoxyalkylenes**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (urethanes with **isocyanates** and fluoroalcs.; soil-resistant spin **finish** compns.)

IT Perfluoro compounds  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (.gamma.-.omega.-, C8-16, alcs., Zonyl BA-N, reaction products with polyethylene glycol biscarboxymethyl Me ether; soil-resistant spin **finish** compns.)

IT 198835-96-0, D 400DS  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (D 400DS; soil-resistant spin **finish** compns.)

IT 123997-77-3, ED 900DSA  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (ED 600DSA, ED 900DSA; soil-resistant spin **finish** compns.)

IT 1691-99-2D, Fluorad FC-10, urethanes with **isocyanates** and polyethers 9004-99-3 9005-08-7 25322-68-3D, Carbowax 600, urethanes with **isocyanates** and fluoroalcs. 26403-62-3 32628-06-1 32628-07-2 36493-27-3 53200-31-0D, Desmodur N-100, urethanes with fluoroalcs. and polyethers 53467-82-6 67665-18-3D, reaction products with fluoroalcs. 67785-80-2 72230-58-1 76961-48-3 85066-57-5 130249-48-8 138636-70-1, Scotchgard FC-248 173784-18-4 185829-42-9, Scotchgard FX-1373M 194554-42-2, FC-365 283602-89-1 283602-90-4 283602-91-5 283602-92-6 283602-94-8 284018-85-5, Scotchgard FX 1860 284026-13-7  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (soil-resistant spin **finish** compns.)

L36 ANSWER 8 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:416700 HCAPLUS

DN 133:44864

TI Felting-free **finished** wool and its manufacture

IN Jansen, Bernhard; Kuemmeler, Ferdinand

PA Bayer A.-G., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM D06M015-00

ICS C08G018-02

CC 40-9 (**Textiles** and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19858734	A1	20000621	DE 1998-19858734	19981218
	WO 2000037734	A1	20000629	WO 1999-EP9527	19991206
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1151161	A1	20011107	EP 1999-958167	19991206
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002533580	T2	20021008	JP 2000-589779	19991206
PRAI	DE 1998-19858734	A	19981218		

WO 1999-EP9527 W 19991206  
 OS MARPAT 133:44864  
 AB Felting-free **finished** wool with good hand is manufd. by (a) exposing the wool to plasma, (b) optionally, treating the exposed wool to an aq. dispersion of **isocyanates**, (c) treating resulting wool with a softener (such as fatty acid amide, quaternary ammonium compd. esters, betaines, fatty acid sarcosides, amino silicones, polyethylene wax, and silicones), and (d) optionally treating the resulting wool with an antislip agent such as silica, **isocyanate** resin, polyacrylates, and polyvinyl **alc.**  
 ST antifelting **finishing** wool plasma pretreatment; polyvinyl **alc** treatment antifelting **finishing** wool; polyacrylate treatment antifelting **finishing** wool; **isocyanate** resin treatment antifelting **finishing** wool; silica treatment antifelting **finishing** wool; polyethylene wax treatment antifelting **finishing** wool; amino silicone treatment antifelting **finishing** wool; sarcoside fatty acid treatment antifelting **finishing** wool; betaine treatment antifelting **finishing** wool; fatty amide treatment antifelting **finishing** wool; quaternary ammonium ester treatment antifelting **finishing** wool; antislip agent treatment antifelting **finishing** wool; softener treatment antifelting **finishing** wool  
 IT Polysiloxanes, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (amino, softeners; felting-free **finished** wool)  
 IT **Polyoxyalkylenes**, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (amino-terminated, polyurethane derivs.; felting-free **finished** wool)  
 IT Quaternary ammonium compounds, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (esters, softeners; felting-free **finished** wool)  
 IT Amides, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (fatty, softeners; felting-free **finished** wool)  
 IT Softening agents  
 Wool  
 (felting-free **finished** wool)  
 IT Fabric **finishing**  
 (felting; felting-free **finished** wool)  
 IT **Polyoxyalkylenes**, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (polyurethane derivs.; felting-free **finished** wool)  
 IT Plasma  
 (pretreatment; felting-free **finished** wool)  
 IT Betaines  
 Polysiloxanes, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (softeners; felting-free **finished** wool)  
 IT 79-10-7D, Acrylic acid, esters, polymers 7631-86-9, Silica, uses 9002-89-5, Polyvinyl **alcohol**  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (antislip agents; felting-free **finished** wool)  
 IT 107-97-1D, Sarcosine, fatty acid derivs. 9002-88-4  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (softeners; felting-free **finished** wool)  
 L36 ANSWER 9 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
 AN 2000:1987777 WTEXTILES  
 TI **Polyurethanes** for textile coating and laminating applications



AU Damewood J.  
 CS J. Damewood, Reeves Brothers, Inc., Spartanburg, SC, United States.  
 SO Coated Fabrics, (2000), (1)  
 Published by: Clemson University  
 DT Book; Conference Article  
 CY United States  
 LA English  
 SL English  
 AV EMDOCS  
 AB In 1937, Otto Bayer discovered that the reaction of an Isocyanate and an **Alcohol** produced a polymeric material. This material was named **Polyurethane**. This single chemical reaction has led to the development of a worldwide industry and the production of a family of polymers that have become one of the most versatile elastomer systems available. Their versatility lies not only in unique combinations of properties, but also in the variety of processing methods. There is no other synthetic polymer system in commercial use that involves such a varied and complex chemistry as do the **polyurethanes**. **Polyurethanes** exhibit properties such as abrasion resistance, oil and solvent resistance, tensile and tear strength, and a wide range of hardness that are often not available at the same level or in the same combination in other elastomers.

CC 75.40.3 **Finishing**  
 CT abrasion resistance; chemical resistance; coating; coating agent; conference; elastomer; oil resistance; **polyurethane**; tear resistance; tensile property

L36 ANSWER 10 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
 AN 2000:1996975 WTEXTILES  
 TI Studies on the effects of polymeric plasticizers in PVC coating formulations  
 AU Ali S.I.; Chughtae Z.A.  
 CS Dr. S.I. Ali, University of Karachi, Department of Applied Chemistry, Karachi 752270, Pakistan.  
 E-mail: preston@cyber.net.pk  
 SO International Journal of Clothing Science and Technology, (2000), 12/6 (13-14)  
 ISSN: 0955-6222  
 DT Journal; Article  
 CY United Kingdom  
 LA English  
 SL English  
 AB Polyvinyl chloride is a versatile plastic material. Very rigid, hard and tough products are manufactured without the addition of any plasticizers while flexible products are made with variety of plasticizers, consisting of phthalates, aliphatic mono and dibasic acid esters, aromatic tri-carboxylic acid esters, aliphatic **alcohol** esters of phosphoric acid. Every plasticizer has its own characteristics and does not have a wide range of properties. The main points to be considered are cost, migration, mar resistance, low temperature flexibility, longer service life, better thermal properties. To achieve these properties the polymeric plasticizers are incorporated in PVC formulations. The performance characteristics are improved with the use of polymeric plasticizers. The quality parameters include rheology, viscosity and flexibility of the coated materials. Description and quality control tests and equipment will be used to prove the above characteristics according to the international standards. Workplan PVC resin, heat stabilizers, fillers will be compounded by mixing phthalates, epoxy plasticizers along with polymeric plasticizers in a stainless steel cylindrical vessel using a light speed shearing mixer. The product is

called plastisol. Application will be carried out by spraying, spread coating, screen printing on the substrate. Curing will be done in a variable temperature oven at 160-170.degree.C for a specific time period. The sample will be tested according to ASTM, DIN, ISO standards for migration, mar resistance and low temperature flexibility. Aims of present study (1) Survey and selection of suitable polymeric plasticizers from aliphatic, aromatic and **polyurethane** plasticizers. (2) Prepare workable compounding formulation for plastisol by changing the ratio of plasticizers. (3) Find the uses of best coating formulations for value added and export oriented products to earn foreign exchange. (4) Industrial applications of these coatings to save foreign exchange.

CC 75.40.3 **Finishing**

CT coating agent; plasticizing agent; polyvinyl chloride; quality; additive

L36 ANSWER 11 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology

AN 639313 TEXTILETECH

DN 200008962

TI Use of Carbonizing Polymers as Additives in Intumescent Polymer Blends -- A Review.

AU Le Bras M.; Bourbigot S.

CS ENSCL - Villeneuve d'Ascq; ENSAIT - Roubaix

SO Polymeric Materials Science and Engineering, 83: 112+, 2 pages (Aug. 20-24, 2000). Reference(s): 7 refs.

CODEN: PMSEGD

DT Journal

LA English

AB A review of the flame resistance and mechanical properties of flame resistant intumescent formulations using charring polymers (nylon 6), thermoplastic **polyurethanes** (TPU), and hybrid nylon 6/clay nanocomposites as carbonization agents addressed the influence of their chemical structures. Results confirmed the advantages of using nylon 6 and nylon 6/clay hybrid as charring polymers in intumescent formulations. Nylon 6/clay nanocomposites improved the mechanical and flame resistant properties of ethylene vinyl **alcohol** based materials. The flame resistance and mechanical performances of the polypropylene/TPU/APP formulations depended on the nature of the polyol and the number of hard segments.

CC A2 Manmade fibers

SH 2220 FLAMEPROOFING AGENTS: additives, blends, carbonizing, clays, conference papers, flame resistance, flameproofing agents, flammability, formulations, intumescent, mechanical properties, nylon polymers, polymers, polypropylene, **polyurethanes**, reviews, thermoplastics

CT ADDITIVES; ADVANTAGES; **ALCOHOLS**; BLENDS; CARBONIZING; CLAYS; CONFERENCE PAPERS; CONFERENCES; ETHYLENE; **FINISHING** AGENTS; FLAME RESISTANCE; FLAMEPROOFING AGENTS; FLAMMABILITY; FORMULATIONS; GRAPHS CHARTS; IMPROVEMENT; MECHANICAL PROPERTIES; NYLON POLYMERS; NYLONS; POLYMERS; POLYPROPYLENE; **POLYURETHANES**; PROPERTIES; RESISTANCE; RETARDANTS; REVIEWS; TEXTILE CHEMICALS; THERMOPLASTICS

L36 ANSWER 12 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology

AN 649712 TEXTILETECH

DN 200200161

TI Polymer Properties and Applications.

AU Ebewele R. O.

CS Univ. of Benin - Benin City

SO Polymer Science and Technology, : 413+, 51 pages (2000). Reference(s): 15 refs.

DT Journal

LA English

NTE ITT Cat. No. TP 156 .P6 E24 2000.

AB The polymer industry comprises raw materials manufacturers; manufacturers of chemicals, additives, and modifiers; companies responsible for compounding and formulating; custom, proprietary, and captive processors; fabricators; and **finishers**. An overview of the characteristics and end uses of polymers addresses the chemistry, properties, and applications of polyethylene; polypropylene; polystyrene; polyvinyl chloride; polyvinyl acetate; polyvinyl **alcohol**; acrylic polymers, including polymethyl methacrylate, polyacrylates, and polyacrylonitrile; engineering polymers, including acrylonitrile butadiene styrene, polyacetal (polyoxymethylene), nylons, polycarbonate, polyphenylene oxide, polyphenylene sulfide, polysulfones, polyimides, polyesters, fluoropolymers, and ionomers; elastomers, including diene based elastomers, ethylene-propylene rubbers, **polyurethanes**, silicone elastomers, and thermoplastic elastomers; and thermosets, including phenolic, amino, epoxy, and network polyester resins.

CC A2 Manmade fibers

SH 3820 POLYMERS AND POLYMERIZATION: applications, bibliographies, book papers, chemistry, elastomers, ionomers, Polymer Science and Technology 2000, polymers, properties, thermoplastics

CT ACETALS; ACETATES; ACRYLIC POLYMERS; ACRYLONITRILE; ACRYLONITRILE POLYMERS; ADDITIVES; **ALCOHOLS**; AMINO RESINS; APPLICATIONS; BIBLIOGRAPHIES; BOOK PAPERS; BUTADIENE; BUTADIENE POLYMERS; CARBONATES; CHARACTER; CHARTS; CHEMICAL MODIFICATION; CHLORIDES; DIAGRAMS; DIENES; ELASTOMERS; END USES; ENGINEERING; EPOXY COMPOUNDS; EPOXY RESINS; ESTERS; ETHYLENE; ETHYLENE OXIDE; FLUORINE COMPOUNDS; FORMULATIONS; IMIDES; MANUFACTURERS; MODIFICATIONS; NITRILES; NYLON POLYMERS; NYLONS; OXIDES; PHENOLIC RESINS; PHENOLS; POLYACRYLONITRILE; POLYCARBONATES; POLYESTER POLYMERS; POLYESTERS; POLYETHYLENE; POLYMERIZATION; POLYMERS; POLYOXYMETHYLENE FABRICS; POLYOXYMETHYLENE FIBERS; POLYOXYMETHYLENE YARNS; POLYPHENYLENES; POLYPROPYLENE; POLYSTYRENE; **POLYURETHANES**; POLYVINYL ACETATE; POLYVINYL **ALCOHOL**; POLYVINYL CHLORIDE; PROPERTIES; PROPYLENE; RAW MATERIALS; RESINS; REVIEWS; SILICON COMPOUNDS; SILICONES; STYRENE; SULFIDES; SULFUR COMPOUNDS; TABLES DATA; TEXTILE CHEMICALS; THERMOPLASTIC RESINS; THERMOPLASTICS; VINYL ACETATE; VINYL CHLORIDE

L36 ANSWER 13 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:796023 HCAPLUS

DN 132:51114

TI Fiber treating agent and fiber treated with the same

IN Hizumi, Nanae; Nomura, Yasuyuki; Doi, Tetsuo

PA Matsumoto Yushi-Seiyaku Co., Ltd., Japan

SO PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM D06M015-59

ICS D06M101-34

CC 40-9 (**Textiles** and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964663	A1	19991216	WO 1999-JP3110	19990610
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1160371	A1	20011205	EP 1999-923997	19990610
	R: DE, FR, IT				
PRAI	JP 1998-181464	A	19980612		
	WO 1999-JP3110	W	19990610		

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

- AB A fiber treating agent preventing polyamide fibers and the like from scum deposition on the fiber surface during long-term storage, from fluffing or breaking during post-processing, and from giving a knit of reduced quality and imparting high collectability to synthetic fiber filaments contains either a urethane compd. obtained from a >C12 polyhydric **alc.** and an org. **diisocyanate** or an amide compd. obtained from a >C12 polycarboxylic acid and an org. **diisocyanate**. Thus, a **finishing** agent contained a 3:1 equiv ratio dimer **alc** .-1,3-bis(**isocyanatomethyl**)cyclohexane polyurethane 2, tridecyl stearate 60, oleic acid monoglyceride 5, polyethylene glycol oleyl ether 12, polyethylene glycol hardened castor oil ether 13, a Na alkanesulfonate 5, and an alkyl phosphate amine 5 parts.
- ST polyamide fiber treating agent polyurethane; fatty acid dimer polyamide; **alc** dimer **polyisocyanate** polyurethane
- IT Esters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aliph.; polyurethanes and polyamides as fiber treating agents)
- IT Fatty acids, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(dimer acids, polyamides with **polyisocyanates**; polyurethanes and polyamides as fiber treating agents)
- IT **Alcohols**, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(**ethoxylated**; polyurethanes and polyamides as fiber treating agents)
- IT **Alcohols**, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(fatty, dimers, polymers with **polyisocyanates**; polyurethanes and polyamides as fiber treating agents)
- IT Polyamides, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fibers; polyurethanes and polyamides as fiber treating agents)
- IT Castor oil  
RL: MOA (Modifier or additive use); USES (Uses)  
(hydrogenated, **ethoxylated**; polyurethanes and polyamides as fiber treating agents)
- IT Carboxylic acids, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polycarboxylic, reaction products with **polyisocyanates**; polyurethanes and polyamides as fiber treating agents)
- IT **Alcohols**, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyhydric, reaction products with **polyisocyanates**; polyurethanes and polyamides as fiber treating agents)
- IT Polyamides, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(polyurethanes and polyamides as fiber treating agents)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyurethanes and polyamides as fiber treating agents)
- IT **Polyoxyalkylenes**, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyurethanes and polyamides as fiber treating agents)
- IT Polyamide fibers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)

(polyurethanes and polyamides as fiber treating agents)  
 IT Polyurethane fibers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyurethanes and polyamides as fiber treating agents)  
 IT 32131-17-2P, Nylon 66, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fibers; polyurethanes and polyamides as fiber treating agents)  
 IT 822-06-ODP, HMDI, polymers with dimer alcs. 26471-62-5DP, TDI, polymers with dimer acids 38661-72-2DP, 1,3-Bis(isocyanatomethyl)cyclohexane, polymers with dimer alcs. 252744-77-7P 252754-32-8P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (polyurethanes and polyamides as fiber treating agents)  
 IT 25496-72-4, Oleic acid monoglyceride  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polyurethanes and polyamides as fiber treating agents)  
 IT 142-91-6, Isopropyl palmitate 1341-38-4, Isooctyl palmitate 31556-45-3, Tridecyl stearate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyurethanes and polyamides as fiber treating agents)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Dai-Ichi Kogyo Seiyaku Co Ltd; JP 07-243178 A 1995 HCAPLUS
- (2) Maruzen Co Ltd; 4th edition Jikken Kagaku Kouza 28 P268
- (3) Matsumoto Yushi-Seiyaku Co Ltd; JP 26-18037 B2 1997
- (4) Mitsubishi Rayon Co Ltd; JP 51-49992 A 1976

L36 ANSWER 14 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:566243 HCAPLUS

DN 131:186178

TI Spinning lubricant for synthetic fiber and method of treating thermoplastic synthetic fiber

IN Sakai, Shusuke; Yoshida, Hiroshi; Kato, Masahiro

PA Sanyo Chemical Industries, Ltd., Japan

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC D06M015-53; D06M015-277; D01F011-08

CC 40-7 (Textiles and Fibers)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9943884	A1	19990902	WO 1999-JP534	19990205
	W: CN, ID, KR, US				
	WO 9949126	A1	19990930	WO 1998-JP1390	19980326
	W: CN, ID, KR, US				
	JP 2000080561	A2	20000321	JP 1999-48939	19990225
	JP 3032889	B2	20000417		
PRAI	JP 1998-62325	A	19980225		
	WO 1998-JP1390	A	19980326		
	JP 1998-178031	A	19980609		
	JP 1998-202776	A	19980701		
AB	A lubricant comprises .gtoreq.1 polyether and .gtoreq.1 surfactant, in which the surface tension at 100.degree., T100 (mN/m), and the percentage of residues resulting from heating at 500.degree., Re (%), satisfy the relations Re .ltoreq. 5.5 - 0.25T100, 10 .ltoreq. T100 .ltoreq. 22, and 0 .ltoreq. Re .ltoreq. 1. Thus, a lubricant contained a base oil 100, Me methacrylate-perfluorooctylethyl acrylate-polyethylene propylene glycol				

- monoacrylate copolymer 0.05, Na C14-16 alkanesulfonate 0.5, and K polyethylene glycol isostearyl ether phosphate 0.5 part, and the base oil contained polyethylene propylene glycol Bu ether 60, block polyethylene propylene glycol lauryl ether 20, polyethylene propylene glycol 10, and polyethylene glycol laurate 10 parts.
- ST polyether surfactant spinning lubricant; polyethylene propylene glycol spinning lubricant; polypropylene ethylene glycol spinning lubricant; surface tension spinning lubricant
- IT Sulfonic acids, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(C14-16-alkanesulfonic, sodium salts; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Surfactants  
(anionic; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Surfactants  
(cationic; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Polyoxyalkylenes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(di-Me polysiloxane-; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Polysiloxanes, uses  
Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(di-Me, polyoxyalkylene-; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Surfactants  
(nonionic; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Polyurethanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-, reaction products with perfluorooctylethanol; spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Lubricants  
Surface tension  
Surfactants  
(spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Quaternary ammonium compounds, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Synthetic polymeric fibers, processes  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Polyethers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(spinning lubricants contg. polyethers and surfactants for synthetic fibers)
- IT 678-39-7D, Perfluorooctylethanol, reaction products with urethane oligomers 2795-39-3, Potassium perfluorooctylsulfonate 52550-45-5, Polyethylene glycol N-perfluorooctylsulfonyl-N-propylaminoethanol ether 75587-26-7D, Polyethylene glycol-4,4',4"-triphenylmethane triisocyanate copolymer, reaction products with perfluorooctylethanol and

polyethylene glycol-polyethylene propylene glycol Bu ether 129710-09-4,  
 Triethylmethylammonium phthalate, uses 172274-70-3, Potassium  
 polyethylene glycol isostearyl ether phosphate 176707-41-8  
 200413-68-9, Methyl methacrylate-perfluorooctylethyl acrylate-polyethylene  
 propylene glycol monoacrylate copolymer 240132-95-0, Methyl  
 methacrylate-polyethylene glycol methyl ether acrylate-N-  
 propylperfluorooctylsulfonaminoethyl acrylate copolymer 240132-96-1,  
 Ethylene oxide-perfluorooctylmethylethylene oxide-propylene oxide  
 copolymer 240413-35-8, Methyl methacrylate-perfluorooctylethyl  
 acrylate-polyethylene propylene glycol butyl ether acrylate copolymer  
 240413-37-0, Adipic acid-polyethylene propylene glycol trimethylolpropane  
 ether copolymer perfluorononanoate 240413-38-1, Ethylene  
 oxide-perfluorooctylmethylethylene oxide-propylene oxide copolymer  
 monobutyl ether

RL: MOA (Modifier or additive use); USES (Uses)

(spinning lubricants contg. polyethers and surfactants for synthetic  
 fibers)

IT 9003-11-6 9004-81-3, Polyethylene glycol laurate 9065-63-8,  
 Polyethylene propylene glycol butyl ether 113609-82-8, Block  
 polyethylene propylene glycol lauryl ether

RL: TEM (Technical or engineered material use); USES (Uses)

(spinning lubricants contg. polyethers and surfactants for synthetic  
 fibers)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Teijin Ltd; JP 621380 B2 1994

(2) Toyobo Co Ltd; JP 6244069 B2 1987

IT 75587-26-7D, Polyethylene glycol-4,4',4"-triphenylmethane  
 triisocyanate copolymer, reaction products with perfluorooctylethanol and  
 polyethylene glycol-polyethylene propylene glycol Bu ether

RL: MOA (Modifier or additive use); USES (Uses)

(spinning lubricants contg. polyethers and surfactants for synthetic  
 fibers)

RN 75587-26-7 HCAPLUS

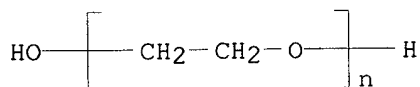
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, polymer with  
 1,1',1''-methylidynetris[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)<sub>n</sub> H2 O

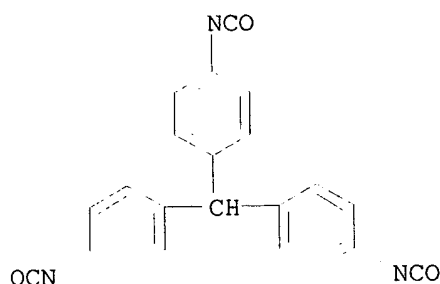
CCI PMS



CM 2

CRN 2422-91-5

CMF C22 H13 N3 O3



L36 ANSWER 15 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:220120 HCAPLUS

DN 130:268498

TI Fluorochemical composition comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith

IN Audenaert, Frans Albert; Vander Elst, Pierre Jean-Marie Emmanuel

PA Minnesota Mining and Manufacturing Company, USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM D06M015-564

ICS D06M015-576; D06M015-643; D06M013-51; D06M013-17; D06M015-17;  
D06M013-148; D06M015-256; D06M015-277; D06M015-33CC 40-9 (**Textiles** and Fibers)

Section cross-reference(s): 43

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9914422	A1	19990325	WO 1997-IB1354	19970918
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9746344	A1	19990405	AU 1997-46344	19970918
	EP 1017897	A1	20000712	EP 1997-945040	19970918
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	BR 9714826	A	20000725	BR 1997-14826	19970918
	CN 1276030	A	20001206	CN 1997-182381	19970918
	JP 2001516818	T2	20011002	JP 2000-511950	19970918
PRAI	WO 1997-IB1354	A	19970918		

AB The present invention provides a fluorochem. compn. for treatment of a fibrous substrate. The fluorochem. compn. comprises at least one fluorochem. compd. and a blocked **isocyanate** extender derived from a condensation of a **polyisocyanate**, a diol selected from the group consisting of fatty ester diols, polysiloxane diols, polyester diols, polytetramethylene glycol, dimer diols and mixts. thereof and an **isocyanate** blocking agent. The present invention also provides a fibrous substrate treated with the above compn. and the use of the above fluorochem. compn. to impart water and/or oil repellency to a fibrous substrate.

ST oil water repellent fiber fluorochem compn blocked **isocyanate**;



- isocyanate** blocked polyester polysiloxane fluorochem compn fiber treatment; polyurethane **isocyanate** blocked fluorochem polyacrylate compn fabric **finishing**
- IT Fluoropolymers, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (acrylic; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Fabric **finishing**  
 (agents; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)  
 (blocked **isocyanate**-terminated; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Textiles  
 (cotton-polyester; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)  
 (di-Me, hydroxy-terminated, polymers, SLM 50400, VP 1610, with **polyisocyanates**, 2-butanone oxime-blocked; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Acrylic polymers, uses  
 Polyurethanes, uses  
 Polyurethanes, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (fluorine-contg.; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Oilproofing agents  
 Waterproofing agents  
 (fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Polyamide fibers, processes  
 Polyester fibers, processes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (microfiber; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Polymer blends  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (of blocked **polyisocyanates** and fluoropolymers; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)  
 (polyester-, blocked **isocyanate**-terminated; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)
- IT Polyurethanes, uses  
 Polyurethanes, uses  
 Polyurethanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP

(Preparation); USES (Uses)  
 (polyester-polysiloxane-, blocked **isocyanate**-terminated;  
 fluorochem. compn. comprising a blocked **isocyanate** extender  
 and method of treatment of a fibrous substrate therewith)

IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (polyester-polyurethane-, blocked **isocyanate**-terminated;  
 fluorochem. compn. comprising a blocked **isocyanate** extender  
 and method of treatment of a fibrous substrate therewith)

IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (polyoxyalkylene-polyurethane-, blocked **isocyanate**  
 -terminated; fluorochem. compn. comprising a blocked **isocyanate**  
 extender and method of treatment of a fibrous substrate therewith)

IT Polyurethanes, uses  
 Polyurethanes, uses  
 Polyurethanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (polyoxyalkylene-siloxane-, blocked **isocyanate**  
 -terminated; fluorochem. compn. comprising a blocked **isocyanate**  
 extender and method of treatment of a fibrous substrate therewith)

IT Polyurethanes, uses  
 Polyurethanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (polysiloxane-, blocked **isocyanate**-terminated; fluorochem.  
 compn. comprising a blocked **isocyanate** extender and method of  
 treatment of a fibrous substrate therewith)

IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (polyurethane-, blocked **isocyanate**-terminated; fluorochem.  
 compn. comprising a blocked **isocyanate** extender and method of  
 treatment of a fibrous substrate therewith)

IT Fluoropolymers, uses  
 Fluoropolymers, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material  
 use); USES (Uses)  
 (polyurethane-; fluorochem. compn. comprising a blocked  
**isocyanate** extender and method of treatment of a fibrous  
 substrate therewith)

IT Polyesters, uses  
 Polyesters, uses  
 Polyesters, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (polyurethane-polysiloxane-, blocked **isocyanate**-terminated;  
 fluorochem. compn. comprising a blocked **isocyanate** extender  
 and method of treatment of a fibrous substrate therewith)

IT Polyoxyalkylenes, uses  
 Polyoxyalkylenes, uses  
 Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(polyurethane-siloxane-, blocked **isocyanate**-terminated; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)

IT Monoglycerides

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(tallow, Rilanit GMS, polymers with PAPI, 2-butanone oxime-blocked; fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)

IT 77-58-7, Dibutyltin dilaurate

RL: CAT (Catalyst use); USES (Uses)

(fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)

IT 79-10-7DP, Acrylic acid, N-Me perfluorooctyl sulfonamidoethanol esters, polymers with alkyl (meth) acrylates and, optionally, poly(di-Me siloxane) methacrylates 79-41-4DP, Methacrylic acid, N-Me perfluorooctyl sulfonamidoethanol esters, polymers with ethylhexyl methacrylate 96-29-7DP, 2-Butanone oxime, reaction products with **isocyanate**-terminated polyurethane extenders 101-68-8DP, MDI, polymers with an .alpha.,.omega.- hydroxy organofunctional polydimethylsiloxanes and, optionally, polytetramethylene glycol, 2-butanone oxime-blocked 9016-87-9DP, PAPI, polymers with an .alpha.,.omega.- hydroxy organofunctional polydimethylsiloxanes and, optionally, polytetramethylene glycol, 2-butanone oxime-blocked 9016-87-9DP, PAPI, polymers with tallow monoglycerides, 2-butanone oxime-blocked 25190-06-1DP, Terathane 650, polymers with .alpha.,.omega.-hydroxy organofunctional polydimethylsiloxanes and **polyisocyanates**, 2-butanone oxime-blocked 32360-05-7DP, Octadecyl methacrylate, polymers with N-Me perfluorooctyl sulfonamidoethyl (meth)acrylate and poly(di-Me siloxane) methacrylates 66072-16-0DP, 2-butanone oxime-blocked 130454-65-8DP, Isonate 143M, polymers with an .alpha.,.omega.- hydroxy organofunctional polydimethylsiloxanes, 2-butanone oxime-blocked 199856-43-4DP, 2-butanone oxime-blocked, optionally C18 **alc.**-terminated 221665-47-0DP, 2-butanone oxime-blocked 221665-48-1DP, 2-butanone oxime-blocked 221665-49-2DP, 2-butanone oxime-blocked 221665-50-5P 221665-51-6DP, (meth)acrylates, polymers with alkyl (meth) acrylates and, optionally, poly(di-Me siloxane) methacrylates 221688-65-9DP, 2-butanone oxime-blocked 221903-16-8DP, 2-butanone oxime-blocked 221903-17-9P 222051-15-2DP, 2-butanone oxime-blocked 222051-16-3DP, 2-butanone oxime-blocked 222051-17-4DP, 2-butanone oxime-blocked 222051-23-2P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)

(fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)

IT 28724-32-5, Ethoquad 18/25

RL: POF (Polymer in formulation); USES (Uses)

(fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)

IT 121274-02-0, Scotchgard FC 251 222050-13-7, FC 3542 222050-22-8, FC 3548 222050-26-2, FC 3551 222050-48-8, FC 3575

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(fluorochem. compn. comprising a blocked **isocyanate** extender and method of treatment of a fibrous substrate therewith)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

(1) Anon; JP 07316500 A HCAPLUS

(2) Anon; JP 62016454 A HCAPLUS

- (3) Asahi Glass Co Ltd; JP 06240239 A 1994 HCAPLUS  
 (4) Bayer AG; EP 0537578 A 1993 HCAPLUS  
 (5) Dainichiseika Color Chem; Ukima Colour & Chem Mfg (JP); EP 0383310 A 1990 HCAPLUS  
 (6) Karydas, A; US 5057377 A 1991 HCAPLUS  
 (7) Toyobo, K; JP 01118669 A HCAPLUS  
 (8) Unitika Ltd; JP 06330468 A HCAPLUS

L36 ANSWER 16 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:298440 HCAPLUS

DN 130:339335

TI Aqueous polymer compositions containing polyester-polyurethanes for impregnating materials of nonwoven fabrics and asphalt roofing sheets made therefrom

IN Tajika, Hiroshi; Togawa, Keiichiro

PA Toyobo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L075-06

ICS B32B005-28; D06M015-572; E04D005-02; C09K003-18

CC 40-10 (Textiles and Fibers)

Section cross-reference(s): 37, 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 11124498	A2	19990511	JP 1997-293018	19971024
PRAI	JP 1997-293018		19971024		

AB The aq. polymer compns. comprise (A) polyurethanes with Tg .gtoreq.0.degree. obtained from polyester diols with Mn .gtoreq.500 and OH equiv. (a), org. **diisocyanates** with NCO equiv (b), and chain extenders with mol. wt. <500 and NCO-reactive functional group equiv (c) at  $0.8 < b/(a + c) \leq 1$ , (B) OH-contg. water-sol. polymers, and (C) crosslinking agents for A and/or B and have ratio of A to B 1-20:80-99 and the wt. ratio of sum of A and B to C 70-99.9:0.1-30. Thus, 100 parts polyester diol (prepd. from terephthalic acid 50, isophthalic acid 47, 5-sodioisophthalic acid 3, ethylene glycol 49, and neopentyl glycol 51 parts; Mn 2000, acid value 10 equiv/106 g) and 10.8 parts IPDI were polymd. in MEK to give a semitransparent polyurethane emulsion with Tg 72.degree.. A needlepunched nonwoven PET fabric was impregnated with an aq. compn. contg. the above polyurethane 18, polyvinyl **alc** 41, sol. starch 42, and Sumimal M 40S (methylated melamine as a chain extender) 11 parts, squeezed to **finish** content 20% (dry wt.), dried, and cured at 150.degree. to give a nonwoven fabric with breaking strength 105 N/5 cm, breaking elongation 16%, good dimensional stability, and tensile strength retention 98% after 1 wk at 60.degree. and 95% relative humidity.

ST polyester polyurethane nonwoven asphalt roofing sheet; heat resistance nonwoven asphalt roofing sheet; water resistance nonwoven asphalt roofing sheet; dimensional stability nonwoven asphalt roofing sheet; PET nonwoven asphalt roofing sheet; polyvinyl **alc** polyester blend **finish** nonwoven; polyol polyurethane blend **finish** nonwoven

IT Crosslinking agents  
 Impregnating materials  
 Roofing

(aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

IT Polymer blends

- RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Asphalt  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Aminoplasts  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agent; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Epoxy resins, uses  
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(crosslinking agent; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fabrics, nonwoven; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Polyester fibers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fabrics, nonwoven; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Polyesters, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, nonwoven fabric; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Water-resistant materials  
Water-resistant materials  
(heat-resistant; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
(polyester-; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
(polyester-polyoxyalkylene-; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Nonwoven fabrics  
(polyesters; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)
- IT Heat-resistant materials  
Heat-resistant materials

(water-resistant; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

IT 224325-23-9P, Ethylene glycol-IPDI-isophthalic acid-neopentyl glycol-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
224325-25-1P, Ethylene glycol-isophthalic acid-MDI-neopentyl glycol-5-sodiosulfoisophthalic acid-terephthalic acid-Newpol BPE 20 block copolymer 224325-26-2P, Ethylene glycol-MDI-5-sodiosulfoisophthalic acid-terephthalic acid-trimethylolpropane-Newpol BPE 20 block copolymer  
224325-29-5P, Dimethylolpropionic acid-ethylene glycol-isophthalic acid-MDI-neopentyl glycol-sebacic acid-terephthalic acid-trimethylolpropane copolymer triethylamine salt 224455-89-4P, Propoxylated bisphenol A-dimethylolpropionic acid-ethylene glycol-isophthalic acid-MDI-neopentyl glycol-5-sodiosulfoisophthalic acid-terephthalic acid-trimellitic acid-Polylite OD-X 688 block copolymer triethylamine salt

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

IT 9002-89-5, Poly(vinyl alcohol) 9004-62-0, SP 200 9005-84-9, Soluble starch

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

IT 9003-08-1, Sumimal M 40S

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agent; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

IT 4098-71-9, IPDI

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(crosslinking agent; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

IT 25038-59-9, Polyethylene terephthalate, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, nonwoven fabric; aq. polymer compns. contg. polyester-polyurethanes for impregnating materials of nonwoven fabrics for asphalt roofing sheets)

L36 ANSWER 17 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:142439 HCAPLUS

DN 130:238872

TI Multifunctional polycarbodiimides, their manufacture, resin compositions containing them, and surface treatment of articles therewith

IN Nakamura, Michie; Shimanaka, Hiroshi; Wakebe, Yoshitaka; Kawamura, Tatsuo; Sugawara, Eiichi; Konno, Yoshinori; Ohura, Toru

PA Dainichi Seika Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G018-02

ICS C08G073-00; C08L101-02; C09D007-12; C09D011-10; C09D179-00; C09J179-00; D06M015-61

CC 42-3 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 40, 43, 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11060667	A2	19990302	JP 1997-226998	19970811
PRAI	JP 1997-226998		19970811		
AB	The polycarbodiimides, having av. 2-20 carbodiimide groups in a mol. and C15-40 hydrocarbyl groups at .gtoreq.1 chain end, are manufd. by reaction of di- or <b>polyisocyanates</b> with C15-40-hydrocarbyl-contg. compds. (e.g., monoalcs., monoamines, or <b>monoisocyanates</b> ) in aliph. hydrocarbon solvents (b.p. .gtoreq.120.degree.) in the presence of carbodiimidization catalysts and are used as crosslinking agents for resins having active hydrogens. Thus, 174.2 parts TDI was reacted with 134.2 parts oleyl <b>alc.</b> in mineral turpentine (b.p. 150-200.degree.), in the presence of 3-methyl-1-phenyl-3-phosphorene 1-oxide, and further reacted with 0.9 part amyl <b>alc.</b> to give a 50% crosslinking agent soln., 3 parts of which and mineral turpentine were added to an aq. soln. of 20 parts of Et acrylate-styrene-acrylic acid copolymer latex (40%) and <b>polyoxyethylene</b> alkylphenyl ether and then the resulting O/W emulsion was blended with Cu phthalocyanine blue pigment dispersion. Cotton and polyester fabrics were printed with the resulting pigment dispersion to show excellent color fastness.				
ST	polycarbodiimide crosslinking agent manuf; color fastness textile printing				
IT	Automobiles (bumpers; manuf. of polycarbodiimide crosslinking agents for resin compns. for coatings)				
IT	Textiles (cotton; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)				
IT	Petroleum products (distillates, reaction solvents; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)				
IT	Polyester fibers, uses RL: TEM (Technical or engineered material use); USES (Uses) (fabrics; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)				
IT	Inks (gravure, water-thinned; manuf. of polycarbodiimide crosslinking agents for resin compns. for gravure inks)				
IT	Paraffin oils RL: NUU (Other use, unclassified); USES (Uses) (isoparaffin oils, reaction solvents; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)				
IT	Coating materials Leather substitutes Paper (manuf. of polycarbodiimide crosslinking agents for resin compns. for coatings)				
IT	Metals, miscellaneous <b>Polyurethanes</b> , miscellaneous RL: MSC (Miscellaneous) (manuf. of polycarbodiimide crosslinking agents for resin compns. for coatings)				
IT	Construction materials Crosslinking agents Textile printing (manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)				

- IT Polycarbodiimides  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT Polyamides, miscellaneous  
 Polyesters, miscellaneous  
 RL: MSC (Miscellaneous)  
 (manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT Nonwoven fabrics  
 (manuf. of polycarbodiimide crosslinking agents for resin compns. for textile printing)
- IT Waterproofing  
 (manuf. of polycarbodiimide crosslinking agents for resin compns. for textile waterproofing)
- IT Wood  
 (manuf. of polycarbodiimide crosslinking agents for resin compns. for wood coatings)
- IT **Polyurethanes, uses**  
**Polyurethanes, uses**  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polycarbonate-, polycarbodiimide-crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT **Polyurethanes, uses**  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyester-, polycarbodiimide-crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT **Polyurethanes, uses**  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-, polycarbodiimide-crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT **Polyurethanes, uses**  
**Polyurethanes, uses**  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-polyurea-, polycarbodiimide-crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT Polyureas  
 Polyureas  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-polyurethane-, polycarbodiimide-crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT Polycarbonates, uses  
 Polycarbonates, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyurethane-, polycarbodiimide-crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)
- IT Paraffin oils



Petroleum spirits

Turpentine oil

RL: NUU (Other use, unclassified); USES (Uses)

(reaction solvents; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)

IT Adhesives

(water-thinned; manuf. of polycarbodiimide crosslinking agents for resin compns. for adhesives)

IT 25248-42-4DP, Polycaprolactone, SRU, diol derivs., polymers with hexanediol, dimethylolpropionic acid and TDI 26471-62-5DP, TDI, polymers with polycaprolactone diol, hexanediol and dimethylolpropionic acid

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(crosslinked; manuf. of polycarbodiimide crosslinking agents for resin compns. for adhesives)

IT 629-11-8DP, 1,6-Hexanediol, polymers with polycaprolactone diol, dimethylolpropionic acid and TDI 4767-03-7DP, Dimethylolpropionic acid, polymers with polycaprolactone diol, hexanediol and TDI 221354-34-3P, Diethylenetriamine-dimethylolpropionic acid-isophorone

**diisocyanate**-polytetramethylene glycol-TDI copolymer triethylamine salt

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for adhesives)

IT 2855-13-2DP, Isophoronediamine, polymers with polycarbonate glycol and dimethylolpropionic acid 4098-71-9DP, Isophorone **diisocyanate**, polymers with polycarbonate glycol, dimethylolpropionic acid, and isophoronediamine

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for coatings)

IT 9002-86-2, PVC 9002-88-4 9003-07-0

RL: MSC (Miscellaneous)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for coatings)

IT 221354-36-5P, Diethylenetriamine-dimethylolpropionic acid-isophorone

**diisocyanate**-monobutyl maleate-polytetramethylene

glycol-styrene-TDI copolymer triethylamine salt 221354-38-7P, Acrylic acid-hexamethylene **diisocyanate**-TDI-vinyl acetate-vinyl chloride copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for gravure inks)

IT 221354-40-1P, Ethyl methacrylate-2-hydroxyethyl methacrylate-isophorone

**diisocyanate**-methacrylic acid-methyl methacrylate-octyl methacrylate-TDI copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for metal coatings)

IT 71-41-0DP, Amyl **alcohol**, reaction products with

polycarbodiimides **143-28-2DP**, Oleyl **alcohol**, reaction

products with polycarbodiimides 9017-01-0DP, TDI homopolymer, reaction products with oleyl **alc.** and amyl **alc.** 63368-95-6DP,

Hexamethylene **diisocyanate**-TDI copolymer, reaction products with oleyl **alc.** and amyl **alc.** 135125-86-9DP, Isophorone

**diisocyanate**-tolylene **diisocyanate** copolymer, reaction

products with oleyl **alc.** and amyl **alc.**

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)

IT 221354-31-0P, Dimethylolpropionic acid-ethylene glycol-MDI-polytetramethylene glycol-TDI copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for textile coatings)

IT 221354-30-9P, Acrylic acid-butyl acrylate-isophorone **diisocyanate**-TDI copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for textile **finishing**)

IT 221354-29-6P, Acrylic acid-ethyl acrylate-styrene-TDI copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for textile printing)

IT 221354-39-8P, Acrylic acid-ethyl acrylate-isophorone **diisocyanate**-methyl methacrylate-TDI copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for wood coatings)

IT 111-65-9, Octane, uses 111-84-2, Nonane 112-40-3, Dodecane 124-18-5, Decane 629-50-5, Tridecane 1120-21-4, Undecane

RL: NUU (Other use, unclassified); USES (Uses)

(reaction solvent; manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)

IT 143-28-2DP, Oleyl **alcohol**, reaction products with polycarbodiimides

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(manuf. of polycarbodiimide crosslinking agents for resin compns. for surface treatment)

RN 143-28-2 HCAPLUS

CN 9-Octadecen-1-ol, (9Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L36 ANSWER 18 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
 AN 630856 TEXTILETECH  
 DN 200000505  
 TI Coated Glove Overview.  
 AU Wagner C.  
 CS Best Mfg  
 SO Protective Clothing, : 16 pages (Sept. 21-23, 1999).  
 DT Journal  
 LA English

- NTE ITT Cat. No. T 55.3 .C53 P75 1999.
- AB Coated work gloves feature rubber, polyvinyl chloride, nitrile, or neoprene coatings that enhance their protective properties. The two principal methods used to manufacture coated work gloves involve either dipping fabric liners into glove polymer compounds or assembling the glove from pieces of coated fabric. Dipping methods include coagulant dipping, straight dipping, and heat sensitive dipping. Manufacturers alter polymer formulations to achieve the desired protection properties. Dipped gloves are often dried in a vulcanizing oven to harden the polymer. Liner fabrics are usually interlock knit or jersey knit fabrics, which feature flexibility, launderability, and insulation properties. Common coatings include natural and synthetic rubber, chloroprene, **polyurethane**, and polyvinyl alcohol.
- CC E3 Apparel end products
- SH 0780 COATING: coatings, conference papers, fabric manufacture, fabric properties, formulations, gloves, linings, neoprene, nitriles, polymers, polyvinyl chloride, Protective Clothing 1999, reviews, rubber
- CT **ALCOHOLS**; CHLORIDES; COATED FABRICS; COATING; COATINGS; CONFERENCE PAPERS; CONFERENCES; FABRIC MANUFACTURE; FABRIC PROPERTIES; FABRICS; **FINISHING**; FLEXIBILITY; FORMULATIONS; GLOVES; HEAT; INSULATION; INTERLOCK; JERSEY; KNIT FABRICS; LAUNDERABILITY; LININGS; MANUFACTURERS; NITRILES; POLYMERS; **POLYURETHANES**; POLYVINYL **ALCOHOL**; POLYVINYL CHLORIDE; PROCEDURES; PROPERTIES; REVIEWS; RUBBER; TABLES DATA; VINYL CHLORIDE
- L36 ANSWER 19 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology
- AN 650839 TEXTILETECH
- DN 200201288
- TI Binders Based on Isocyanates: **Polyurethanes**.
- AU Wicks Z. W. Jr.; Jones F. N.; Pappas S. P.
- CS Eastern Michigan Univ; Kodak Polychrom Graphics
- SO Organic Coatings: Science and Technology, : 180+, 28 pages (1999).  
Reference(s): 64 refs.
- DT Journal
- LA English
- NTE ITT Cat. No. TP 1175 .S6 W56 1999.
- AB Urethanes result from reacting **alcohol** with isocyanates. Because they are highly reactive, **polyisocyanates** are suitable for coatings that cure at ambient or moderately elevated temperatures. Coatings based on aliphatic diisocyanates and stabilized with hindered amine light stabilizers provide excellent exterior durability. An introduction to isocyanate binders addresses the reactions of isocyanates; kinetics of isocyanate reactions with **alcohols**, including noncatalyzed reactions and catalysts; isocyanates used in coatings, including aromatic and aliphatic isocyanates; two package urethane coatings; blocked isocyanates; moisture curing **polyisocyanate** coatings; hydroxy terminated **polyurethanes**; and water borne **polyurethanes**.
- CC D4 Mechanical **finishing**
- SH 0780 COATING: aliphatic compounds, bibliographies, binders, book papers, coatings, diisocyanates, durability, hindered amine light stabilizers, isocyanates, Organic Coatings -- Science and Technology 1999, **polyurethanes**
- CT **ALCOHOLS**; ALIPHATIC COMPOUNDS; AMINES; AROMATIC COMPOUNDS; BIBLIOGRAPHIES; BINDERS; BOOK PAPERS; CATALYSTS; CHEMICAL AIDS TO PROCESSING; COATING; COATINGS; CURING; DIAGRAMS; DURABILITY; EQUATIONS; **FINISHING**; HIGH TEMPERATURE; HYDROXY COMPOUNDS; ISOCYANATES; KINETICS; LIGHT; MOISTURE; **POLYURETHANES**; STABILITY; STABILIZERS AGENTS; TABLES DATA; TEMPERATURE; URETHANES; WATER

L36 ANSWER 20 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:256126 HCAPLUS

DN 129:17038

TI Agents for finishing fibrous products for specialty handle or moisture retention or antibacterial properties with good washfastness and manufacture of finished products therefrom

IN Honda, Hidenobu; Oonishi, Takashi; Saito, Koichi

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M015-333

ICS D06M011-83; D06M013-02; D06M013-144; D06M013-224; D06M013-228

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10110387	A2	19980428	JP 1996-260826	19961001
PRAI	JP 1996-260826		19961001		

AB The finishing agents comprise emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) (I) with degree of sapon. 60-90% and d.p. 1500-5000 and optionally contg. binders. Finished fibrous products are prepd. by treating fibrous products with aq. solns. (A) contg. the finishing agents at or above the cloud point of A. Lanolin 500, aq. 5% I (L-25, degree of sapon. 75%, d.p. 2500) 200, sorbitan trioleate 40, **polyoxyethylene** nonylphenyl ether 15, and H2O 1100 g were mixed to give an emulsion. A polyester woven fabric was dyed in blue, treated with a soln. contg. 2 g of the emulsion and 800 g H2O for 30 min at 80.degree., washed, and dried to give a fabric with wt. increase 1% and exhibiting wool-like touch and supple handle and wt. increase retention 50% after 20 washings.

ST fabric finishing specialty handle; polyester fabric finishing wool like handle; nylon stocking finishing soft handle; sapon. polyvinyl acetate finish fabric; lanolin finish polyester fabric handle; squalene finish nylon knit

IT Binders  
Clothing  
Textiles

(agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT Polyamide fibers, uses  
Polyester fibers, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT Esters, uses  
Lanolin

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT Alkanes, uses  
Castor oil  
Coconut oil  
Hydrocarbon oils

Inorganic compounds

Isoalkanes

Jojoba oil

Olive oil

Paraffin oils

Petrolatum

RL: TEM (Technical or engineered material use); USES (Uses)

(agents for finishing fibrous products with emulsions contg.

hydrophobic substances and partially sapond. poly(vinyl acetate) for

specialty handle or moisture retention or antibacterial properties)

IT Fats and Glyceridic oils, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(animal; agents for finishing fibrous products with emulsions contg.

hydrophobic substances and partially sapond. poly(vinyl acetate) for

specialty handle or moisture retention or antibacterial properties)

IT Aminoplasts

RL: TEM (Technical or engineered material use); USES (Uses)

(binder; agents for finishing fibrous products with emulsions contg.

hydrophobic substances and partially sapond. poly(vinyl acetate) for

specialty handle or moisture retention or antibacterial properties)

IT Acrylic polymers, uses

Polyamides, uses

Polyesters, uses

Polysiloxanes, uses

**Polyurethanes, uses**

RL: TEM (Technical or engineered material use); USES (Uses)

(binders; agents for finishing fibrous products with emulsions contg.

hydrophobic substances and partially sapond. poly(vinyl acetate) for

specialty handle or moisture retention or antibacterial properties)

IT Polyamide fibers, uses

Polyester fibers, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(fabrics; agents for finishing fibrous products with emulsions contg.

hydrophobic substances and partially sapond. poly(vinyl acetate) for

specialty handle or moisture retention or antibacterial properties)

IT Fats and Glyceridic oils, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(fish, orange roughly; agents for finishing fibrous products with

emulsions contg. hydrophobic substances and partially sapond.

poly(vinyl acetate) for specialty handle or moisture retention or

antibacterial properties)

IT Fats and Glyceridic oils, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(horse, orange roughly; agents for finishing fibrous products with

emulsions contg. hydrophobic substances and partially sapond.

poly(vinyl acetate) for specialty handle or moisture retention or

antibacterial properties)

IT Alcohols, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(long-chain; agents for finishing fibrous products with emulsions

contg. hydrophobic substances and partially sapond. poly(vinyl acetate)

for specialty handle or moisture retention or antibacterial properties)

IT Fats and Glyceridic oils, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(macadamia nut; agents for finishing fibrous products with emulsions

contg. hydrophobic substances and partially sapond. poly(vinyl acetate)

for specialty handle or moisture retention or antibacterial properties)

IT Fats and Glyceridic oils, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(mink; agents for finishing fibrous products with emulsions contg.

hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT Beefsteak plant  
(oils; agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT Clothing  
Clothing  
(panty hose; agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT Fats and Glyceridic oils, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(vegetable; agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT 110-27-0, Isopropyl myristate 111-02-4, Squalene 3234-81-9, Octadecyl myristate 9003-20-7, Poly(vinyl acetate) 9003-20-7D, Poly(vinyl acetate), sapon.  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT 112-72-1, Myristyl alcohol 112-92-5, 1-Octadecanol 661-19-8, Behenyl alcohol 16260-26-7, Octyl myristate 36653-82-4, Cetanol 59130-69-7, Cetyl 2-ethylhexanoate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT 9003-08-1, Melamine resin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder; agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

IT 112-72-1, Myristyl alcohol 112-92-5, 1-Octadecanol 661-19-8, Behenyl alcohol 36653-82-4, Cetanol  
RL: TEM (Technical or engineered material use); USES (Uses)  
(agents for finishing fibrous products with emulsions contg. hydrophobic substances and partially sapon. poly(vinyl acetate) for specialty handle or moisture retention or antibacterial properties)

RN 112-72-1 HCAPLUS  
CN 1-Tetradecanol (8CI, 9CI) (CA INDEX NAME)

HO- (CH<sub>2</sub>)<sub>13</sub>-Me

RN 112-92-5 HCAPLUS  
CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO- (CH<sub>2</sub>)<sub>17</sub>-Me

RN 661-19-8 HCAPLUS  
CN 1-Docosanol (6CI, 8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>21</sub>-Me

RN 36653-82-4 HCAPLUS  
 CN 1-Hexadecanol (9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>15</sub>-Me

L36 ANSWER 21 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1998:653783 HCAPLUS  
 DN 129:291122  
 TI Keratin fiber shrinkproofing agent and shrinkproofing  
 IN Saiuchi, Naofumi; Furukawa, Masako; Kobayashi, Katsuyoshi; Sato, Kazuo  
 PA DAI-ICHI KOGYO SEIYAKU CO., LTD., Japan  
 SO Eur. Pat. Appl., 9 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English  
 IC ICM D06M015-568  
 CC 40-9 (Textiles and Fibers)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 867556	A1	19980930	EP 1998-105048	19980319
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 10266077	A2	19981006	JP 1997-73617	19970326
	JP 3136354	B2	20010219		
	CN 1194823	A	19981007	CN 1998-105875	19980325
	CN 1087607	B	20020717		
PRAI	JP 1997-73617	A	19970326		
AB	Keratin textile fibers can be shrinkproofed without compromising hand by depositing a urethane prepolymer and heat-treating the fiber. (e) The terminal <b>isocyanate</b> groups were blocked with a H sulfite. The urethane prepolymer is (a) the reaction product of a polyol derived from a trihydric <b>alc.</b> having av. functionality 2.2-3.0, polyoxypropylene content 50-100% and mol. wt. 8000-20,000 with an <b>isocyanate</b> compd. (b), the terminal <b>isocyanate</b> groups were blocked with a H sulfite. Thus, 100% wool fabrics were twice dipped in <b>finishing</b> agent contg. hexamethylene <b>diisocyanate</b> -polypropylene glycol glycerol ether (mol. wt. 8000) copolymer sulfite salt and squeezed, and dried to give fabric having shrinkage (home laundering) 1% and hand 38 g, vs. 67 and 30, resp., without treatment.				
ST	urethane polymer sulfite shrinkproofing agent; wool fabric shrinkproofing; polyoxypropylene polyurethane sulfite shrinkproofing agent; <b>isocyanate</b> bisulfite urethane shrinkproofing wool; <b>polyoxyalkylene</b> high mol wt polyurethane salt				
IT	Shrinkproofing (textiles) (agents and; urethane sulfonate shrinkproofing agent for keratin fabrics)				
IT	Polyurethanes, uses RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) ( <b>polyoxyalkylene</b> -, sulfonate; urethane sulfonate shrinkproofing agent for keratin fabrics)				
IT	Textiles (wool; urethane sulfonate shrinkproofing agent for keratin fabrics)				

IT 60238-03-1 60621-25-2 214079-73-9  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(shrinkproofing agent for keratin fabrics)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Asahi Glass Co Ltd; EP 0339435 A 1989 HCAPLUS
- (2) Bayer Ag; FR 2325671 A 1977 HCAPLUS
- (3) Carroll, C; US 3847543 A 1974 HCAPLUS
- (4) Commonwealth Scientific And Industrial Research Org; JP 52037900 A 1973
- (5) Commonwealth Scientific And Industrial Research Organization; FR 2172416 A 1973 HCAPLUS
- (6) Guise, G; JOURNAL OF THE SOCIETY OF DYERS AND COLOURISTS 1975, V91(10), P325 HCAPLUS

L36 ANSWER 22 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology

AN 621848 TEXTILETECH

DN 199901097

TI Novel Antimicrobial N-Halamine Polymer Coatings.

AU Worley S. D.; Eknoian M.

CS Auburn Univ

SO Polymer Preprints, 39, No. 2: 246, 1 page (Aug. 1998). Reference(s): 3 refs.

CODEN: ACPPAY

DT Journal

LA English

AB Researchers prepared novel N-halamine polymers to use as biocidal coatings for a variety of substrates. The monomer was prepared by the reaction of 2-amino-2-ethyl-1,3-propanediol with diethyl carbonate in the presence of sodium methoxide at 110 degrees for 48 hours. The solid product 4-(hydroxymethyl)-4-ethyl-2-oxazolidinone (compound 1) with a melting point of 75-77 degrees centigrade, was obtained in 80 percent yield. Compound 1 was reacted with acryloyl chloride in chloroform under reflux for 6 hours to produce (acryloxymethyl)-4-ethyl-2-oxazolidinone (compound 2) in 98 percent yield as yellow oil. Compound 2 was chlorinated at room temperature using t-butyl hypochlorite or sodium hypobromite to produce N-halamines. The best coatings were obtained using emulsion polymerization techniques. Compound 2 was copolymerized with such monomers as acrylonitrile, vinyl chloride, styrene, and vinyl acetate and grafted to polyacrylonitrile, polyvinyl chloride, polystyrene, polyvinyl acetate, and polyvinyl alcohol using sodium lauryl sulfate as surfactant and potassium persulfate as the initiator. The polymer latex compounds were coated on such substrates as glass, fabric, and polyurethane medical catheters. Upon chlorination, all of the coatings were effective against S. aureus, S. enteritidis, and P. aeruginosa.

CC D4 Mechanical **finishing**

SH 0780 COATING: antimicrobial agents, antimicrobial protection, coatings, polymers

CT ACETATES; ACRYLIC POLYMERS; ACRYLONITRILE; ACRYLONITRILE POLYMERS; ALCOHOLS; AMINES; BROMINE COMPOUNDS; BROMITES; CARBONATES; CHLORIDES; COATED FABRICS; COATING; COATINGS; COPOLYMERIZATION; DIAGRAMS; DIOLS; EMULSIONS; FABRICS; **FINISHING**; GLASS; GLASS FABRICS; GRAFTING; HYDROXY COMPOUNDS; HYPOCHLORITES; LATEXES; MEDICAL-SURGICAL SUPPLIES; MELTING POINTS; MONOMERS; NITRILES; OILS; OXIDES; PERSULFATES; POLYACRYLONITRILE; POLYMERIZATION; POLYMERS; POLYSTYRENE; **POLYURETHANES**; POLYVINYL ACETATE; POLYVINYL ALCOHOL; POLYVINYL CHLORIDE; POTASSIUM COMPOUNDS; PRODUCTS; REACTIVE COMPOUNDS; RESEARCH; SODIUM COMPOUNDS; SOLIDS; STYRENE; SUBSTRATES; SULFATES; SULFUR COMPOUNDS; SURFACTANTS; TEMPERATURE; TEXTILE RESEARCH; VINYL ACETATE;



VINYL ACETATE COPOLYMERS; VINYL CHLORIDE; VINYL CHLORIDE COPOLYMERS;  
VINYL COMPOUNDS MONOMERIC; YELLOW; YELLOWING; YIELD

L36 ANSWER 23 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:776196 HCAPLUS

DN 128:49415

TI Oil- and water-repellent F-containing polyurethanes, providing good laundry air-dry performance on fibrous substrates

IN Audenaert, Frans A.; Allewaert, Kathy E. M. L. A.; Hooftman, Gert; Nagase, Makoto; Lens, Hugo R.

PA Minnesota Mining and Manufacturing Company, USA

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08G018-62

ICS C08G018-28; C08G018-61; D06M015-576

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9744375	A1	19971127	WO 1997-US8140	19970512
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	CA 2252902	AA	19971127	CA 1997-2252902	19970512
	AU 9730665	A1	19971209	AU 1997-30665	19970512
	EP 898588	A1	19990303	EP 1997-925563	19970512
	EP 898588	B1	20010627		
	R:	BE, CH, DE, FR, GB, LI, NL			
	CN 1218483	A	19990602	CN 1997-194670	19970512
	US 5910557	A	19990608	US 1997-855803	19970512
	BR 9709001	A	19990803	BR 1997-9001	19970512
	JP 2000511574	T2	20000905	JP 1997-542507	19970512
	KR 2000011010	A	20000225	KR 1998-709160	19981113
PRAI	EP 1996-107909	A	19960517		
	WO 1997-US8140	W	19970512		
AB	F-contg. polyurethanes with the title properties are manufd. by reaction of (a) di-, tri-, or tetravalent isocyanates or their combinations, (b) .gtoreq.1 difunctional chain extender, (c) .gtoreq.1 blocking group, and a fluoro oligomer that is reactive the free NCO groups and is prepd. by oligomerization of unsatd. fluorocompds. and optionally F-free unsatd. compds. in the presence of .gtoreq.1 functionalized chain-transfer agent. A typical F-contg. polyurethane is manufd. by polymn. of 3 parts PAPI with 2 parts Arcol P1004 (polypropylene glycol) in the presence of 3 parts Me Et ketoxime and 2 parts oligomer prepd. by polymn. of N-methylperfluorooctanesulfonamidoethyl acrylate in the presence of 2-mercaptoethanol at a 4:1 ratio, resp.				
ST	fluoro polyurethane oilproofing waterproofing fibrous substrate; laundering resistant oilproofing waterproofing agent textile; perfluorooctanesulfonamidoethyl acrylate oligomer polyurethane adduct manuf; polyoxypropylene polyurethane fluoroacrylic oligomer adduct manuf; PAPI polyurethane fluoroacrylic oligomer adduct manuf; fluoroacrylic oligomer polyurethane adduct manuf				

- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic, reaction products, with chain-transfer agents, **polyurethanes**, and NCO-reactive blocking agents; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT Textiles  
 (cotton-polyester; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT Textiles  
 (cotton; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (di-Me, mono[[methyloxopropenyl]oxy]propyl group]-terminated, X 24-8201, reaction products, with chain-transfer agents, **polyurethanes**, and NCO-reactive blocking agents; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT Acrylic fibers, uses  
 Polyamide fibers, uses  
 Polyester fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fabrics; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT Carpets  
 Leather  
 Nonwoven fabrics  
 Oilproofing agents  
 Paper  
 Waterproofing agents  
 (oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT **Polyurethanes**, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (**polyoxyalkylene-**, reaction products, with mercaptoethanol-fluoroacrylic polymer adducts; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT **Polyurethanes**, uses  
**Polyurethanes**, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polysiloxane-, reaction products, with mercaptoethanol-fluoroacrylic polymer adducts; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT Polysiloxanes, uses  
 Polysiloxanes, uses  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (**polyurethane-**, reaction products, with mercaptoethanol-fluoroacrylic polymer adducts; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT **Polyurethanes**, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (reaction products, with mercaptoethanol-fluoroacrylic polymer adducts; oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)

- IT 60-24-2DP, 2-Mercaptoethanol, reaction products with fluoroacrylic polymers and **polyurethanes** 111-87-5DP, 1-Octanol, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and **polyurethanes**, uses 112-92-5DP, Stearyl alcohol, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and **polyurethanes** 25268-77-3DP, polymers with acrylic polysiloxanes, reaction products with mercaptoethanol and **polyurethanes** 25268-77-3DP, polymers with siloxanes, reaction products with mercaptoethanol and **polyurethanes** 27119-23-9DP, reaction products with mercaptoethanol and **polyurethanes** 29014-57-1DP, reaction products with mercaptoethanol and **polyurethanes** 29403-95-0DP, reaction products with mercaptoethanol and **polyurethanes** 53862-89-8DP, PAPI-polypropylene glycol copolymer, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents 56619-11-5DP, Bisphenol A-PAPI copolymer, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents 57214-05-8DP, PAPI-propylene glycol copolymer, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents 66072-16-0DP, PAPI-polytetramethylene glycol copolymer, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents 108388-39-2DP, reaction products with mercaptoethanol and **polyurethanes** 149545-17-5DP, reaction products with mercaptoethanol and **polyurethanes** 199856-35-4DP, reaction products with mercaptoethanol and **polyurethanes** 199856-38-7DP, reaction products with mercaptoethanol and **polyurethanes** 199856-40-1DP, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents 199856-42-3DP, 2-Ethyl-1,3-hexanediol-PAPI copolymer, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents 199856-43-4DP, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and NCO-reactive blocking agents  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- IT 112-92-5DP, Stearyl alcohol, reaction products with mercaptoethanol-fluoroacrylic polymer adducts and **polyurethanes**  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (oil- and water-repellent F-contg. **polyurethanes**, providing good laundry air-dry performance on fibrous substrates)
- RN 112-92-5 HCAPLUS  
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO- (CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 24 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1997:579799 HCAPLUS  
 DN 127:221907  
 TI Antisoiling **finishing** of cotton fabrics  
 IN Chilou, Emmanuelle; David, Claire; Fleury, Etienne; Marchand, Jean-Pierre;

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

Wong, Kenneth  
 PA Rhone-Poulenc Chimie, Fr.; Chilou, Emmanuelle; David, Claire; Fleury, Etienne; Marchand, Jean-Pierre; Wong, Kenneth  
 SO PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 IC ICM C11D001-62  
 ICS C11D001-60; C11D003-22; C11D003-37  
 CC 40-9 (Textiles and Fibers)  
 Section cross-reference(s): 46  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9731085	A1	19970828	WO 1997-FR304	19970219
	W:	AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	FR 2745014	A1	19970822	FR 1996-2181	19960220
	FR 2745014	B1	19980403		
	CA 2246381	AA	19970828	CA 1997-2246381	19970219
	AU 9720983	A1	19970910	AU 1997-20983	19970219
	EP 882117	A1	19981209	EP 1997-906221	19970219
	EP 882117	B1	20021113		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	JP 11505568	T2	19990521	JP 1997-529848	19970219
	JP 3253972	B2	20020204		
	BR 9707650	A	19990727	BR 1997-7650	19970219
	AT 227765	E	20021115	AT 1997-906221	19970219
	US 6379394	B1	20020430	US 2000-631657	20000803
PRAI	FR 1996-2181	A	19960220		
	WO 1997-FR304	W	19970219		
	US 1998-117954	A1	19980810		
OS	MARPAT 127:221907				
AB	In the title process, an antisoiling agent bearing .gtoreq.1 group adsorbing on cotton by electrostatic interaction and .gtoreq.1 hydrophobic group is deposited on the fabric during washing, rinsing, softening, and/or drying. Cotton fabric was rinsed in H2O contg. 1 g/L trimethyltetradecylammonium bromide at 40.degree. for 20 min and laundered in water contg. 4 drops of motor oil at 40.degree., resulting in 72% soil removal; vs. 57 for untreated cotton.				
ST	soil repellent cotton fabric; quaternary ammonium bromide soil repellent; polysaccharide amphiphilic soil repellent; polyester amphiphilic soil repellent; <b>polyoxyalkylene</b> amphiphilic soil repellent; acrylic polymer amphiphilic soil repellent				
IT	Acrylic polymers, uses Polyesters, uses <b>Polyoxyalkylenes</b> , uses Polysaccharides, uses Quaternary ammonium compounds, uses RL: MOA (Modifier or additive use); USES (Uses) (amphiphilic; antisoiling <b>finishing</b> of cotton fabrics)				
IT	Soilproofing (antisoiling <b>finishing</b> of cotton fabrics)				
IT	Textiles				

- (cotton; antisoiling **finishing** of cotton fabrics)
- IT Quaternary ammonium compounds, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polymers, amphiphilic; antisoiling **finishing** of cotton fabrics)
- IT 57-09-0, Cetyltrimethylammonium bromide 1119-94-4, Dodecyltrimethylammonium bromide 1119-97-7, Trimethyltetradecylammonium bromide 2382-43-6D, (2-Hydroxypropyl)trimethylammonium chloride, reaction products with glycidyl stearyl ether 3033-77-0D, Glycidyltrimethylammonium chloride, reaction products with polyvinyl alc. and dodecyl **isocyanate** 4202-38-4D, Dodecyl **isocyanate**, reaction products with polyvinyl alc. and glycidyltrimethylammonium chloride 9002-89-5D, reaction products with glycidyltrimethylammonium chloride and dodecyl **isocyanate** 16245-97-9D, Glycidyl octadecyl ether, reaction products with (hydroxypropyl)trimethylammonium chloride  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (antisoiling **finishing** of cotton fabrics)
- L36 ANSWER 25 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1997:732144 HCAPLUS  
 DN 127:359260  
 TI Nontoxic and safe polycarbodiimides, their preparation and use as crosslinking agents, curable at low temperatures, in various resin compositions  
 IN Nakamura, Michiei; Simanaka, Hiroyuki; Sugawara, Eiichi; Wakebe, Yoshitaka; Okura, Ken; Kawamura, Tatsuo; Takahashi, Masayuki; Takezawa, Nobuo  
 PA Dainichiseika Color and Chemicals Mfg. Co. Ltd., Japan; Ukima Colour & Chemicals Mfg. Co. Ltd.  
 SO Eur. Pat. Appl., 11 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C08G018-79  
 ICS C08G018-10; C08G018-28; C08G018-08; C07C267-00; C08G085-00; C08L101-00  
 ICI C08L101-00, C08L079-00  
 CC 35-5 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 39, 40, 42, 43, 55  
 FAN.CNT 1
- |      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | EP 805172  | A2   | 19971105 | EP 1997-106927  | 19970425 |
|      | EP 805172  | A3   | 19971112 |                 |          |
|      | R: CH, DE, ES, FR, GB, IT, LI  |      |          |                 |          |
|      | JP 10030024  | A2   | 19980203 | JP 1997-92819   | 19970328 |
|      | JP 3312857   | B2   | 20020812 |                 |          |
|      | US 5929188   | A    | 19990727 | US 1997-842259  | 19970424 |
|      | CN 1165833   | A    | 19971126 | CN 1997-109709  | 19970428 |
|      | CN 1096478   | B    | 20021218 |                 |          |
|      | US 6211293   | B1   | 20010403 | US 1999-316368  | 19990521 |
| PRAI | JP 1996-130624   | A    | 19960430 |                 |          |
|      | US 1997-842259   | A1   | 19970424 |                 |          |
| AB   | A polyfunctional polycarbodiimide compd., which comprises at least four mol. chains contg. a carbodiimido N:C:N group bonded independently to a backbone, can be produced by reacting (a) an isocyanate compd. having at least one carbodiimido group and at least one isocyanate group with (b) a polyol, polyamine and/or amino alc. having at least four hydroxyl, primary amino and/or secondary amino groups in a mol. Thus, 631.4 parts (by wt.) |      |          |                 |          |

- 30% soln. of polyhexamethylenecarbodiimide diisocyanate obtained by condensing 4 mols. of hexamethylene diisocyanate using a carbodiimidation catalyst was mixed with 1.3 parts 5% soln. of dibutyltin dilaurate and 468.5 parts 50% soln. of polyethylene glycol monomethyl ether, followed by an addn. of 37.6 parts 50% soln. of decaglyceryl monolaurate to give a polycarbodiimide compd. (crosslinking agent) having 11 carbodiimido-contg. side chains and 30 carbodiimido groups in total in a mol. A resin-based printing paste comprising 4:60:36 acrylic acid-Et acrylate-styrene copolymer latex 20, 20% solids crosslinking agent prepd. above 5, water 10, 20% solids **polyoxyethylene** alkylphenyl ether 5, mineral terpin 55, and aq. copper phthalocyanine blue pigment 5 parts was applied on a knitted cotton fabric by a screen printing machine and the printed fabric was excellent in various fastnesses, soft, and a vivid blue color.
- ST nontoxic polycarbodiimide crosslinking agent prepn; safety resin compn polycarbodiimide crosslinking agent; hexamethylene diisocyanate decaglyceryl monolaurate copolymer prepn; polyethylene glycol monomethyl ether termination polycarbodiimide; acrylic acid ethyl acrylate styrene copolymer; printing cotton fabric knit
- IT Automobiles  
(bumpers, polypropylene, moldings; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Acrylic polymers, uses  
Polyesters, uses  
**Polyurethanes**, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(carboxy-contg.; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Textiles  
RL: NUU (Other use, unclassified); USES (Uses)  
(cotton, knitted, printing pastes for; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Polyester fibers, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(fabrics, tufted or woven, coatings for; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Polyamides, uses  
Polyesters, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(films, inks for; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Inks  
(gravure, water-thinned; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Inks  
(gravure; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Acrylic polymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(hydroxy-contg.; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Plastic films  
RL: NUU (Other use, unclassified); USES (Uses)  
(inks for gravure printing of; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment

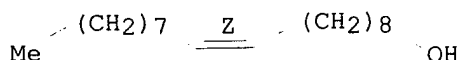
- of articles)
- IT Coating materials
  - (moisture-permeable; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Textile printing
  - Textile printing
  - (pastes; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Floors
  - (poly(vinyl chloride); prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT **Polyoxyalkylenes, preparation**
  - Polyoxyalkylenes, preparation**
  - Polyoxyalkylenes, preparation**
  - RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
  - (polycarbodiimide-**polyurethane-**, crosslinking agent; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT **Polyurethanes, preparation**
  - Polyurethanes, preparation**
  - Polyurethanes, preparation**
  - RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
  - (**polyoxyalkylene**-polycarbodiimide-, crosslinking agent; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Polycarbodiimides
  - Polycarbodiimides
  - Polycarbodiimides
  - RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
  - (**polyoxyalkylene**-**polyurethane-**, crosslinking agent; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT **Polyurethanes, uses**
  - Polyurethanes, uses**
  - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
  - (polyurea-; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Polyureas
  - Polyureas
  - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
  - (**polyurethane-**; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Adhesives
  - Coating materials
  - Crosslinking agents
  - Paints
  - Waterproofing agents
  - (prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Laminated plastic films

- RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT **Polyurethanes, preparation**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Metals, uses  
Nonwoven fabrics  
Paper  
Plastics, uses  
Textiles  
Threads  
Wood  
Yarns  
RL: NUU (Other use, unclassified); USES (Uses)  
(prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Acrylic rubber  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Inks  
(printing; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Pastes  
Pastes  
(textile printing; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Coating materials  
(water-resistant; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT Adhesives  
(water-thinned; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 71-36-3DP, 1-Butanol, reaction products with **polyoxyalkylene**-polycarbodiimide-**polyurethanes**, preparation **143-28-2DP**  
, reaction products with **polyoxyalkylene**-polycarbodiimide-**polyurethanes** 9003-13-8DP, Polypropylene glycol monobutyl ether, reaction products with **polyoxyalkylene**-polycarbodiimide-**polyurethanes** 9004-74-4DP, Polyethylene glycol monomethyl ether, reaction products with **polyoxyalkylene**-polycarbodiimide-**polyurethanes** 9038-95-3DP, **Polyoxyethylene**-polyoxypropylene monobutyl ether, reaction products with **polyoxyalkylene**-polycarbodiimide-**polyurethanes** 198636-00-9DP, Dipentaerythritol monolaurate-hexamethylene diisocyanate copolymer, reaction products with polypropylene glycol monobutyl ether 198646-64-9DP, Decaglycerol monolaurate-hexamethylene diisocyanate copolymer, reaction products with polyethylene glycol monomethyl ether 198646-65-0DP, Hexamethylene diisocyanate-**polyoxyethylene** sorbitol monolaurate copolymer, reaction products with **polyoxyethylene**-polyoxypropylene monobutyl ether or polyethylene glycol monomethyl ether 198646-66-1DP, **Polyoxyethylene** sorbitol monolaurate-tolylene diisocyanate copolymer, reaction products with polyethylene glycol monomethyl ether, oleyl alc., n-butanol, or n-butanol and sulfanyltrietylamide  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent);



- USES (Uses)  
(crosslinking agent; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 9002-86-2, Poly(vinyl chloride)  
RL: NUU (Other use, unclassified); USES (Uses)  
(film or flooring material, inks or coatings for; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 9003-07-0, Polypropylene  
RL: NUU (Other use, unclassified); USES (Uses)  
(film or molding, adhesives and inks and coatings for; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 9002-88-4, Polyethylene  
RL: NUU (Other use, unclassified); USES (Uses)  
(film, inks for; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 107896-64-0P, Diphenylmethane diisocyanate-**ethylene oxide**-propylene oxide block copolymer 198636-01-0P, Dimethylolpropionic acid-diphenylmethane diisocyanate-ethylene glycol-tetramethylene glycol copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 629-11-8D, 1,6-Hexanediol, polymers with diols and TDI 4767-03-7D, polymers with diols and TDI 25119-83-9, Acrylic acid-butyl acrylate copolymer 25135-39-1, Acrylic acid-ethyl acrylate-methyl methacrylate copolymer 25215-62-7, Monobutyl maleate-styrene copolymer 25248-42-4D, Poly[oxy(1-oxo-1,6-hexanediyl)], diol derivs., polymers with diols and TDI 25585-77-7, Acrylic acid-ethyl acrylate-styrene copolymer 26471-62-5D, TDI, polymers with polycaprolactonediol and polyols 29035-81-2, Acrylic acid-vinyl acetate-vinyl chloride copolymer 198636-03-2, Diethylenetriamine-dimethylolpropionic acid-isophorone diisocyanate-tetramethylene glycol copolymer triethylamine salt 198636-04-3, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-octyl methacrylate copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- IT 143-28-2DP, reaction products with **polyoxyalkylene**-polycarbodiimide-**polyurethanes**  
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(crosslinking agent; prepn. of polycarbodiimide crosslinking agents and their use in low-temp.-curable resin compns. for treatment of articles)
- RN 143-28-2 HCAPLUS  
CN 9-Octadecen-1-ol, (9Z)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



L36 ANSWER 26 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
AN 618141 TEXTILETECH

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

DN 199806990  
 TI **Polyurethanes: Versatile Fabric Coating Polymers.**  
 AU Damewood J.  
 CS Reeves Intern  
 SO The Clemson University Conference on Coated Fabrics: Top and Backcoating: Laminating, A Comprehensive Update on . . . Polymers, Fibers, Substrates, Manufacturing, Specialty Products, : 12 pages (May 8-9, 1997).  
 Reference(s): 7 refs.  
 DT Journal  
 LA English  
 NTE ITT Cat. No. TS 1512 .C53 C62 1997.  
 AB **Polyurethanes** exhibit such properties as abrasion resistance, oil and solvent resistance, tensile and tear strength, and hardness not readily available in other elastomers. Urethane polymers are derived from isocyanate and **alcohol**. The polymerization is either a one-step or two-step process. Altering the molecular weight of the polyol creates polymers that are chemically similar but have very different properties. Various combinations of polyol, diisocyanate, and chain extender generate different polymers for diverse end products. Illustrations demonstrate the chemical reactions for polymer formations and commonly available diisocyanates.

CC D4 Mechanical **finishing**  
 SH 0780 COATING: abrasion resistance, coatings, polymers, **polyurethanes**, solvent resistance, tear resistance, tensile properties, urethanes

CT ABRASION; ABRASION RESISTANCE; **ALCOHOLS**; CHEMICAL PROPERTIES; COATING; COATINGS; DIAGRAMS; ELASTOMERS; EQUATIONS; FABRICS; **FINISHING**; GRAPHS CHARTS; ISOCYANATES; MOLECULAR WEIGHT; OILS; POLYMERIZATION; POLYMERS; **POLYURETHANES**; PRODUCTS; PROPERTIES; REACTIONS CHEMICAL; RESISTANCE; SOLVENT RESISTANCE; SOLVENTS; STRENGTH OF MATERIALS; TABLES DATA; TEAR STRENGTH; TENSILE PROPERTIES; TENSILE STRENGTH; TEXTILE CHEMICALS; TWO-STEP PROCESSES; URETHANES; WEIGHT

L36 ANSWER 27 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
 AN 614839 TEXTILETECH  
 DN 199803688  
 TI Fluorinated Preparations.  
 AU Corpart J. M.; Dessaint A.; Briere J. R.  
 CS Elf Atochem  
 SO Revista de Quimica Textil, No. 135: 50+, 13 pages (Oct.-Dec. 1997).  
 Reference(s): 5 refs.  
 CODEN: RQTED3  
 DT Journal  
 LA Spanish  
 AB Fluorinated **finishes** confer a range of properties to fabrics, including impermeability and antistain and antisoil properties. A review of these **finishing** agents covers their synthesis, methods of application, and end use. The review uses products manufactured by Elf Atochem under the tradename Foraperle to illustrate important points. The presence of fluorocarbon groups are responsible for **finish** properties due to modifications in the fabric's surface tension and energy. The major processes used in synthesis are electrofluorination and telomerization. Fluorinated **alcohols** are the raw materials for the manufacture of fluorinated **finishes**, including acrylic and **polyurethane** products. The most important methods of application are pad and foam application. End uses include **finishing** industrial fabrics, apparel, and home furnishings.

CC D3 Chemical **finishing**  
 SH 2170 **FINISHES**: applying, Elf Atochem Deutschland GmbH, end uses, fabric properties, **finishes**, fluorine compounds, reviews,

CT synthesis  
 ACRYLIC RESINS; **ALCOHOLS**; ANTISOILING AGENTS; APPAREL;  
 APPLYING; DIAGRAMS; ELECTROCHEMICAL; END USES; ENERGY; FABRIC PROPERTIES;  
 FABRICS; **FINISHES**; FLUORINE COMPOUNDS; FLUOROCARBON COMPOUNDS;  
 FOAMS; GRAPHS CHARTS; HOME FURNISHINGS; INDUSTRIAL FABRICS;  
 MANUFACTURERS; MANUFACTURING; MODIFICATIONS; PADS; PERMEABILITY;  
**POLYURETHANES**; PREPARATION; PROCESSING; PRODUCTS; PROPERTIES;  
 RANGE EXTREMES; RAW MATERIALS; REVIEWS; STAINS; SURFACES; SYNTHESIS;  
 TABLES DATA; TENSION

L36 ANSWER 28 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
 AN 619379 TEXTILETECH  
 DN 199808228  
 TI Solution Spinning Processes.  
 AU Gupta V. B.  
 SO Manufactured Fibre Technology, : 124+, 13 pages (1997). Reference(s): 10  
 refs.

DT Journal  
 LA English

NTE ITT Cat. No. TS 1540 .M4 1997.

AB Solution extrusion, which is used when a polymer cannot be melted under  
 reasonable conditions, involves either dry extrusion or wet extrusion.  
 Dry extrusion is the solidification of the fiber through the use of  
 solvent evaporation and heat, whereas wet extrusion is solidification  
 through coagulation in solution. Dry extrusion produces such fibers as  
 secondary cellulose acetate, cellulose triacetate, acrylic,  
**polyurethane** elastomer, and polyvinyl chloride. Wet extrusion  
 produces viscose rayon, acrylic, polyvinyl **alcohol**, and  
 aromatic nylon. Discussions cover the rheology of the extrusion solution,  
 spinning cell, fiber cross section formation, spin stretch during  
 extrusion, **finish** applications, winding, development of  
 structure and morphology, and comparative features of wet and dry  
 extrusion.

CC A2 Manmade fibers

SH 3110 MANMADE FIBER EXTRUSION: book papers, coagulating, comparisons, dry  
 extrusion, fiber manufacture, Manufactured Fibre Technology, polymers,  
 wet extrusion

CT ACETATE FIBERS; ACETATES; ACRYLIC POLYMERS; **ALCOHOLS**;  
 APPLICATIONS; AROMATIC COMPOUNDS; BOOK PAPERS; CELLULOSE; CELLULOSE  
 ACETATE; CELLULOSE DERIVATIVES; CELLULOSE TRIACETATE; CHLORIDES;  
 COAGULATING; COMPARISONS; CROSS SECTIONS; DEVELOPMENT; DIAGRAMS; DRY  
 EXTRUSION; ELASTOMERS; EQUATIONS; EVAPORATION; EXTRUSION; FIBER  
 MANUFACTURE; FIBERS; FILAMENTS FIBERS; HEAT; MANMADE FIBERS; MORPHOLOGY;  
 NYLONS; POLYMERS; **POLYURETHANES**; POLYVINYL **ALCOHOL**;  
 POLYVINYL CHLORIDE; RHEOLOGICAL PROPERTIES; SOLUTIONS; SOLVENT  
 PROCESSING; SOLVENTS; SPIN **FINISHES**; SPINNING; STRETCHING;  
 TABLES DATA; VINYL CHLORIDE; VISCOSE FIBERS; WET EXTRUSION; WINDING

L36 ANSWER 29 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1996:313957 HCAPLUS  
 DN 125:60904  
 TI Soil-release oil- and water-repellent fluorochemical for textiles  
 IN Kirchner, Jack R.  
 PA E. I. Du Pont De Nemours and Company, USA  
 SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 843,886, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM D06M015-576  
 NCL 008115510

CC 40-9 (Textiles and Fibers)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5509939	A	19960423	US 1994-323984	19941017
	US 5411766	A	19950502	US 1993-166331	19931210
	US 5580645	A	19961203	US 1995-512514	19950808
	WO 9612059	A2	19960425	WO 1995-US13081	19951016
	WO 9612059	A3	19960620		
	W: AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, UZ, VN				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9538304	A1	19960506	AU 1995-38304	19951016
PRAI	US 1989-459040	B2	19891229		
	US 1992-815753	B1	19920102		
	US 1992-843886	B2	19920228		
	US 1993-52421	B1	19930330		
	US 1993-166331	A2	19931210		
	US 1992-815607	B1	19920103		
	US 1992-946863	B1	19920923		
	US 1994-189468	B1	19940201		
	US 1994-323984	A	19941017		
	WO 1995-US13081	W	19951016		
OS	MARPAT 125:60904				
AB	Substrates are made oil-, H2O- and soil-repellent and/or provided with soil-release properties by applying to them H-reactive urea linkage-contg. <b>alkoxypolyoxyalkylene</b> fluorocarbamates prep'd. by reacting (a) .gtoreq.1 <b>polyisocyanate</b> which contains .gtoreq.3 NCO groups with (b) .gtoreq.1 fluorochem. reagent which contains 1 functional group which has .gtoreq.1 H and .gtoreq.2 C atoms each of which contains .gtoreq.2 F atoms, (c) .gtoreq.1 hydrophilic, H2O-solvatable reagent which contains a single functional group which has .gtoreq.1 reactive H, (d) .gtoreq.1 reagent which contains 1 reactive H and which on reaction with an NCO group yields functionality which has abeyant chem. reactivity with fibrous substrates, and (e) then with H2O, reactants (b), (c) and (d) being reacted with 55-95% of the NCO groups, and H2O with the remainder. The reaction product of hexamethylene <b>diisocyanate</b> (HMDI) homopolymer (Desmodur N-3200), perfluoroalkylethyl <b>alc.</b> mixt., methoxypolyethylene glycol, 2-butanone oxime, and water, in this order, gave 16/24/30/30 reaction level fluid, 41.5% solids, 5.1% F content aq. dispersion with a 390 nm unimodal av. particle size and having (on std. test fabric; at 1050 ppm F) oil repellency rating 4, soil release 7-8, and soil release after 10 washings 6-7.				
ST	oilproofing agent urea link <b>polyoxyalkylene</b> polyurethane; soilproofing agent urea link <b>polyoxyalkylene</b> polyurethane; waterproofing agent urea link <b>polyoxyalkylene</b> polyurethane; urea link <b>polyoxyalkylene</b> polyurethane manuf; self emulsifiable dispersion fluorocarbamate <b>finish</b> textile; perfluoroalkylethyl <b>alc</b> polyurethane soilproofing agent; fluorine contg polyurethane soilproofing agent				
IT	<b>Alcohols</b> , uses Thiols, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (perfluoroalkylethyl, reaction product with <b>polyoxyalkylene</b> , <b>diisocyanate</b> , fluorochem. reagents; soil-release oil- and water-repellent fluorochem. for textiles)				

- IT Oilproofing  
Soilproofing  
Waterproofing  
(agents, soil-release oil- and water-repellent fluorochem. for textiles)
- IT Amines, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(perfluoroalkyl, reaction product with **polyoxyalkylene**, **diisocyanate**, fluorochem. reagents; soil-release oil- and water-repellent fluorochem. for textiles)
- IT Urethane polymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(**polyoxyalkylene**-, fluorine-contg., block, urea link-contg.; soil-release oil- and water-repellent fluorochem. for textiles)
- IT Fluoropolymers  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(**polyoxyalkylene**-polyurethane-, block, urea link-contg.; soil-release oil- and water-repellent fluorochem. for textiles)
- IT 62-53-3DP, Phenylamine, N-perfluoroalkylethyl deriv., reaction product with **diisocyanate**, methoxypolyethylene glycol, butanone oxime, and water 96-29-7DP, 2-Butanone oxime, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, and water 100-64-1DP, Cyclohexanone oxime, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, and water 127-06-0DP, Acetone oxime, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, and water 423-46-1DP, 1,1-Dihydroperfluorohexanol, reaction product with **diisocyanate**, methoxypolyethylene glycol, butanone oxime, and water 920-66-1DP, reaction product with **diisocyanate**, methoxypolyethylene glycol, butanone oxime, and water 3779-63-3DP, Hexamethylene **diisocyanate** cyclic trimer, reaction product with perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, butanone oxime, and water 4236-15-1DP, reaction product with **diisocyanate**, methoxypolyethylene glycol, butanone oxime, and water 9004-74-4DP, Methoxypolyethylene glycol, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, butanone oxime and water 9038-95-3DP, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, butanone oxime and water 24448-09-7DP, reaction product with **diisocyanate**, methoxypolyethylene glycol, butanone oxime, and water 27274-31-3DP, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, butanone oxime and water 28182-81-2DP, Hexamethylene **diisocyanate** polymer, reaction product with perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, butanone oxime, and water 32128-53-3DP, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, butanone oxime and water 37342-24-8DP, Mondur CB-75, reaction product with perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, butanone oxime, and water 51728-68-8DP, reaction product with **diisocyanate**, perfluoroalkylethyl **alc.**, butanone oxime and water 53200-31-0DP, Desmodur N-100, reaction product with perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, butanone oxime, and water 53895-32-2DP, reaction product with perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, butanone oxime, and water 94857-19-9DP, Cythane 2601, reaction product with perfluoroalkylethyl **alc.**, methoxypolyethylene glycol, butanone oxime, and water 104559-01-5DP,

Desmodur N-3300, reaction product with perfluoroalkylethyl **alc.**,  
methoxypolyethylene glycol, butanone oxime, and water 116243-07-3DP,  
Desmodur N-3200, reaction product with perfluoroalkylethyl **alc.**,  
methoxypolyethylene glycol, butanone oxime, and water 178315-81-6DP,  
reaction product with **diisocyanate**, methoxypolyethylene glycol,  
butanone oxime, and water 178315-82-7DP, reaction product with  
**diisocyanate**, methoxypolyethylene glycol, butanone oxime, and  
water

RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)

(soil-release oil- and water-repellent fluorochem. for textiles)

L36 ANSWER 30 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1995:713676 HCAPLUS

DN 123:85874

TI Aqueous oil- and water-repellent fluorochemical compositions which cure at  
ambient temperature, method for imparting oil- and water-repellent  
properties to fibers and fabrics and treated fibers and fabrics from

IN Smith, Richard S.; Audenaert, Frans

PA Minnesota Mining and Mfg. Co., USA

SO U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 890,669, abandoned

CODEN: USXXAM

DT Patent

LA English

IC ICM C08J003-00

ICS C08K003-00; C08L075-00; C08L027-12

NCL 524507000

CC 40-9 (**Textiles** and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5350795	A	19940927	US 1993-89041	19930709
PRAI	US 1991-727878		19910710		
	US 1992-890669		19920528		

AB Title compns. for use without thermal curing comprise an aq.,  
substantially org. solvent-free soln. or dispersion of a fluorochem.  
acrylate copolymer comprising a fluorinated acrylate monomer, polyalkylene  
glycol acrylate or methacrylate, a polyalkylene glycol diacrylate or  
dimethacrylate, and a polyalkoxylated polyurethane having pendant  
perfluoroalkyl groups comprising an aliph. or arom. tri- or higher order  
**isocyanate**, a fluorinated **alc.**, amine, mercaptan, and a  
poly(**oxyalkylene**) diol or dithiol, the polyalkoxylated  
polyurethane having a wt. av. mol. wt. >40,000. The compn. can be applied  
to **finished** articles, e.g., clothing or upholstered furniture,  
without the need for thermal curing and provides good oil- and  
water-repellency even though the compn. is aq.

ST fluorochem aq oil water repellent; ambient cure fluorochem aq  
polyurethane; solvent free fluorochem oil water repellent

IT **Alcohols**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(C8-14, .gamma.-.omega.-perfluoro, reaction products with  
**polyisocyanates** and diols; aq. oil- and water-repellent  
fluorochem. compns. which cure at ambient temp.)

IT Oilproofing

Waterproofing

(agents, aq. fluorochem. compns. which cure at ambient temp.)

IT Soilproofing

(agents, aq. oil- and water-repellent fluorochem. compns. which cure at  
ambient temp.)

IT Urethane polymers, uses

- RL: TEM (Technical or engineered material use); USES (Uses)  
(**polyoxyalkylene-**, perfluoroalkyl group-contg., graft, aq. oil- and water-repellent fluorochem. compns. which cure at ambient temp.)
- IT Fluoropolymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**polyoxyalkylene-polyurethane**, perfluoroalkyl group-contg., graft, aq. oil- and water-repellent fluorochem. compns. which cure at ambient temp.)
- IT Perfluoro compounds  
RL: TEM (Technical or engineered material use); USES (Uses)  
(.gamma.-.omega.-, C8-14, alcs., reaction products with **polyisocyanates** and diols; aq. oil- and water-repellent fluorochem. compns. which cure at ambient temp.)
- IT 106-89-8D, Epichlorohydrin, reaction products with perfluoroalkyl **alc. derivs. 112-92-5D, Stearyl alcohol**, reaction products with **polyisocyanates** 1691-99-2D, N-Ethylperfluorooctanesulfonamidoethyl **alcohol**, reaction products with **polyisocyanates** and diols 24448-09-7D, reaction products with **polyisocyanates** and diols 25268-77-3D, reaction products with **polyisocyanates** and diols 26471-62-5D, TDI, reaction products with diols and perfluoroalkyl alcs. 53200-31-0D, Desmodur N-100, reaction products with diols and perfluoroalkyl alcs. 90597-70-9D, Carbowax 1450, reaction products with perfluoroalkyl alcs. and **polyisocyanates** 138069-64-4D, Voranate M220, reaction products with diols and perfluoroalkyl alcs.  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aq. oil- and water-repellent fluorochem. compns. which cure at ambient temp.)
- IT 822-06-0D, HDI, reaction products with diols and perfluoroalkyl alcs.  
RL: TEM (Technical or engineered material use); USES (Uses)  
(q. oil- and water-repellent fluorochem. compns. which cure at ambient temp.)
- IT **112-92-5D, Stearyl alcohol**, reaction products with **polyisocyanates**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aq. oil- and water-repellent fluorochem. compns. which cure at ambient temp.)
- RN 112-92-5 HCAPLUS  
CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 31 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
AN 1993:410415 HCAPLUS  
DN 119:10415  
TI Aqueous oil- and water-repellent compositions for textile fibers and fabrics  
IN Smith, Richard S.; Audenaert, Frans A.  
PA Minnesota Mining and Mfg. Co., USA  
SO PCT Int. Appl., 40 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM D06M015-576  
ICS D06M015-277; C08G018-28  
CC 40-9 (**Textiles** and Fibers)

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9301349	A1	19930121	WO 1992-US5469	19920629
	W: AU, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	AU 9222976	A1	19930211	AU 1992-22976	19920629
PRAI	US 1991-727989		19910710		
	WO 1992-US5469		19920629		
AB	Title compn. requiring no thermal treatment comprises an aq., substantially solvent-free soln. or dispersion of (a) a copolymer of a fluorinated acrylate, polyalkylene glycol acrylate or methacrylate, and a polyalkylene glycol diacrylate or dimethacrylate and/or (b) a <b>polyoxyalkylated</b> polyurethane having pendant perfluoroalkyl groups comprised of an aliph or arom. tri- or polyisocyanate, a fluorinated alc., amine or mercaptan, and a <b>polyoxyalkylene</b> diol or dithiol. A dispersion of a polyurethane prep. from Desmodur N 100 ( <b>triisocyanate</b> ) 1.08, N-methylperfluorooctanesulfonamidoethyl alc. 1.8, and Carbowax 1450 [poly(oxy-C2-4 alkylene) polyol] 0.72 mol, imparted good oil and water repellency to cotton, cotton-polyester, and polyolefin textiles.				
ST	polyurethane fluoro oil water repellent; fluoroacrylate polymer oil water repellent; oil repellent urethane fiber; water repellent urethane fiber; oilproofing waterproofing textile perfluoro polyurethane				
IT	Acrylic polymers, uses				
	RL: USES (Uses)				
	(in oilproofing and waterproofing textiles with perfluoro group-contg. <b>polyurethanes</b> )				
IT	Oilproofing				
	Waterproofing				
	(agents, perfluoro group-contg. <b>polyurethane</b> compns. as, for textiles)				
IT	Urethane polymers, preparation				
	RL: PROC (Process)				
	(perfluoroalkyl group-contg., manuf. of, as oil- and water-repellent agents for textiles)				
IT	Fluoropolymers				
	RL: PROC (Process)				
	( <b>polyurethane-</b> , perfluoroalkyl group-contg., manuf. of, as oil- and water-repellent agents for textiles)				
IT	25736-61-2, Maleic anhydride-styrene copolymer sodium salt				
	RL: USES (Uses)				
	(in oilproofing and waterproofing textiles with perfluoro group-contg. <b>polyurethanes</b> )				
IT	60-24-2D, 2-Mercaptoethanol, reaction products with N-methylperfluorooctanesulfonamidoethyl acrylate and <b>polyurethanes</b>				
	<b>112-92-5D</b> , Stearyl alcohol, reaction products with perfluoro group-contg. <b>polyurethanes</b> 1691-99-2D, N-Ethylperfluorooctanesulfonamidoethyl alcohol, reaction products with <b>polyoxyalkylene polyurethanes</b> 24448-09-7D, reaction products with <b>polyoxyalkylene polyurethanes</b>				
	25268-77-3D, N-Methylperfluorooctanesulfonamidoethyl acrylate, reaction products with mercaptoethanol and <b>polyoxyalkylene polyurethanes</b> 148130-60-3D, reaction products with perfluorooctanesulfonamidoethyl alc. derivs. 148130-61-4D, reaction products with perfluorooctanesulfonamidoethyl alc. derivs.				
	RL: USES (Uses)				
	(oil- and water-repellent agents, for textiles, manuf. of)				
IT	<b>112-92-5D</b> , Stearyl alcohol, reaction products with perfluoro group-contg. <b>polyurethanes</b>				



RL: USES (Uses)

(oil- and water-repellent agents, for textiles, manuf. of)

RN 112-92-5 HCAPLUS

CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO- (CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 32 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology

AN 569180 TEXTILETECH

DN 199305779

TI SYNTHESIS OF HYDROPHILIC **POLYURETHANE** COATINGS FOR NYLON FABRIC  
TO IMPART MOISTURE-PERMEABLE AND WATER-REPELLENT PROPERTIES.

AU Nevrekar N. B.; Bailkeri R. S.; Desai V. M.

CS SASMIRA - Bombay

SO Technological Conference, Resume of Papers, BTRA, SITRA, NITRA, and  
ATIRA, : 109-114 (Apr. 6-7, 1993). Reference(s): 11 refs.

CODEN: RPTCEP

DT Journal

LA English

AB An experiment synthesized hydrophilic **polyurethane** coatings for  
nylon fabric to impart moisture-permeable and water-repellent properties.  
Investigations focused on the transesterified trimethylolpropane 2-ethyl  
2-hydroxymethyl 1,3-propanediol in combination with castor oil and  
linseed oil. Polyethylene glycol imparted flexibility to the alkyl  
derivative. The random polymerization of the derivative with a dibutyl  
tin dilaurate catalyst and a hexamethylene diamine chain extender  
produced a hydroxyl-terminated **polyurethane** coating. Increases  
in the amount of linseed oil boosted the water permeability of coated  
nylon fabric samples. The coated samples had a water-repellent spray test  
rating of 50 percent; this value increased to 90 percent when the samples  
were coated and then treated with fluorocarbons. The coating resisted  
various organic solvents, such as ethyl acetate, **alcohol**, and  
xylene. The washfastness of the coated fabric samples was satisfactory.

CC D4 Mechanical **finishing**

SH 5190 WATER RESISTANCE: coatings. hydrophilic **polyurethane**  
coatings for nylon fabric impart moisture-permeable and water-repellent  
properties (Conf. Paper)

3300 MOISTURE PHENOMENA: hydrophilic **polyurethane** coatings for  
nylon fabric impart moisture-permeable and water-repellent properties  
(Conf. Paper)

0770 COATED FABRICS: nylon fabric. hydrophilic **polyurethane**  
coatings impart moisture-permeable and water-repellent properties (Conf.  
Paper)

3820 POLYMERS AND POLYMERIZATION: hydrophilic **polyurethane**  
coatings for nylon fabric impart moisture-permeable and water-repellent  
properties (Conf. Paper)

0920 CONFERENCES: ATIRA 34th Joint Technological Conference 1993

CT ACETATE FABRICS; ACETATES; **ALCOHOLS**; BOOK PAPERS; CATALYSTS;  
COATED FABRICS; COATINGS; CONFERENCE PAPERS; CONFERENCES; DERIVATIVES  
CHEMICAL; FABRIC PROPERTIES; FABRIC TESTS; FABRICS; FLUOROCARBONS;  
GLYCOLS; GRAPHS CHARTS; HYDROPHILIC FABRICS; MOISTURE; MOISTURE  
PHENOMENA; NYLON FABRICS; NYLONS; OILS; ORGANIC SOLVENTS; PERMEABILITY;  
PHYSICAL PROPERTIES; POLYETHYLENE; POLYMERIZATION; POLYMERS;  
**POLYURETHANES**; PROPERTIES; RATING; SAMPLES; SOLVENTS; SYNTHESIS;  
TABLES DATA; VALUE; WASHFASTNESS; WATER PERMEABILITY; WATER REPELLENTS

L36 ANSWER 33 OF 63 HCAPLUS COPYRIGHT 2003 ACS

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

AN 1992:635789 HCAPLUS  
 DN 117:235789  
 TI Waterproofing and oilproofing compositions for fibrous materials  
 IN Roessler, Erich; Sahin, Belgin  
 PA Pfersee Chemie GmbH, Germany  
 SO Eur. Pat. Appl., 17 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM D06M015-277  
 ICS D06P001-52  
 CC 40-9 (Textiles and Fibers)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 491248	A2	19920624	EP 1991-120940	19911206
	EP 491248	A3	19930310		
	EP 491248	B1	19950222		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
	DE 4040641	A1	19920625	DE 1990-4040641	19901219
	US 5324763	A	19940628	US 1991-809684	19911217
	JP 04289275	A2	19921014	JP 1991-335132	19911218
PRAI	DE 1990-4040641		19901219		

AB The title comps. comprise .gtoreq.2 components A and B with wt. ratio A:B 30-70:70-30 which are aq. dispersions where A contains a copolymer of a F-contg. alkyl (meth)acrylate, vinyl chloride, and a F-free (meth)acrylate as well as **ethoxylated** alkylphenol, B contains a copolymer of a F-contg. alkyl acrylate, vinylidene chloride, and a F-free (meth)acrylate as well as **ethoxylated** fatty acids or an oxime blocked **isocyanate**, a F-contg. oligo- or polyurethane as well as an **ethoxylated** fatty amine (salt). This **finish** provides good hand to the fiber and reduces dye bleeding. A compn. in 1 L of H2O was prepd. contg. an aq. compn. contg. a C.apprx.8 perfluoroalkyl acrylate-C16-18 alkyl (meth)acrylate-vinylidene chloride copolymer and **ethoxylated** fatty acid, an aq. dispersion of a perfluoroalkylethyl acrylate-C16-18 alkyl acrylate-vinyl chloride copolymer and **ethoxylated** alkylphenol, a dispersion contg. a mixt. of siloxanes and **ethoxylated** alcs., and a dispersion contg. a tetrasubstituted urea, carboxylic acid salt, and **ethoxylated** castor oil. This compn. provides good durable oil- and waterproofing properties to polyesters and polyester blends and the textiles show no or very little dye bleeding with solvents when dyed with disperse red, blue, or black dyes.

ST oilproofing waterproofing bleedfree **finishing** textile;  
 fluoroacrylate copolymer waterproofing oilproofing textile; fatty acid **ethoxylated** waterproofing oil proofing

IT Siloxanes and Silicones, uses

RL: USES (Uses)

(oil- and waterproofing comps. contg., for textiles, for good dye bleeding resistance)

IT Polyester fibers, miscellaneous

RL: MSC (Miscellaneous)

(oilproofing and waterproofing comps. for, for low dye bleeding)

IT Waterproofing

(oilproofing and, of textiles, comps. for, for low dye bleeding)

IT Oilproofing

(waterproofing and, of textiles, comps. for, for low dye bleeding)

IT **Alcohols**, compounds

Fatty acids, esters

RL: USES (Uses)

(**ethoxylated**, oil- and waterproofing compns. contg., for textiles, for good dye bleeding resistance)

IT Amines, compounds  
RL: USES (Uses)  
(fatty, **ethoxylated**, oil- and waterproofing compns. contg., for textiles, for good dye bleeding resistance)

IT Urethane polymers, uses  
RL: USES (Uses)  
(perfluoroalkyl group-contg., oil- and waterproofing compns. contg., for textiles, for good dye bleeding resistance)

IT Fluoropolymers  
RL: USES (Uses)  
(polyurethane-, perfluoroalkyl group-contg., oil- and waterproofing compns. contg., for textiles, for good dye bleeding resistance)

IT 75-01-4D, polymers with alkyl (meth)acrylate and perfluoroalkyl acrylates  
75-35-4D, Vinylidene chloride, polymers with alkyl (meth)acrylate and perfluoroalkyl acrylates 79-10-7D, 2-Propenoic acid, alkyl esters, polymers with perfluoroacrylates and vinylidene chloride 79-10-7D, 2-Propenoic acid, perfluoroalkyl esters, polymers with acrylates 79-41-4D, alkyl esters, polymers with perfluoroacrylates and vinylidene chloride 9081-90-7, Desmodur L 75  
RL: USES (Uses)  
(oil- and waterproofing compns. contg., for textiles, for good dye bleeding resistance)

IT 4813-57-4D, polymers with perfluoroalkyl (meth)acryl and chlorovinyl compds.  
RL: USES (Uses)  
(oil- and waterproofing compns. contg., for textiles, with low dye bleeding)

L36 ANSWER 34 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:512312 HCAPLUS

DN 117:112312

TI Vinyl-grafted, carboxylic group-containing polyurethanes, and their production and use

IN Kroggel, Matthias

PA Hoechst A.-G., Germany

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C08F283-00

ICS C08F008-12; C08L051-08; C09J151-08

ICI C08F283-00, C08F218-04

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37, 40, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 481408	A2	19920422	EP 1991-117503	19911014
	EP 481408	A3	19920708		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	DE 4032908	A1	19920423	DE 1990-4032908	19901017
	CA 2052867	AA	19920418	CA 1991-2052867	19911007
	AU 9185858	A1	19920430	AU 1991-85858	19911016
	AU 645613	B2	19940120		
	JP 04272912	A2	19920929	JP 1991-267922	19911016
PRAI	DE 1990-4032908		19901017		
AB	Vinyl-grafted polyurethanes with good soly. in aq. alkali, useful for moldings, adhesives, coatings, and textile <b>finishing</b> (no data),				

are prepd. by using polyurethanes prepd. from di- or polymethylol carboxylic acids or their salts. Thus, polymn. of vinyl acetate (I) with Bz2O2 at 85-98.degree. in the presence of 2,2-bis(hydroxymethyl)propionic acid (II)-1,4-butanediol-isophorone **diisocyanate**-PEG copolymer (III, mol. wt. 5777, carboxy group content 4/mol.) gave a graft polymer (IV) with mol. wt. 13,794, I unit content 58.12%, II unit content 3.89%, and III content 37.99%. Hydrolysis of IV with methanolic NaOH in MeOH gave a product with hydrolysis degree 99.3 mol%, mol. wt. 10,442 (CO2H form), vinyl **alc.** unit content 39%, III content 55.32%, II unit content 5.14%, CO2H content 263 .mu.mol/g, and dissoln. time 5.5 min in 10% aq. NaOH at 60.degree. (8-15 min for similar products not contg. II).

ST alkali sol vinyl grafted polyurethane; polyvinyl **alc** grafted polyurethane; carboxy group contg grafted polyurethane; dimethylolpropionic polyurethane vinyl grafted; PEG polyurethane vinyl grafted; butanediol polyurethane vinyl grafted; adhesive vinyl grafted polyurethane; coating vinyl grafted polyurethane; molding vinyl grafted polyurethane; textile **finishing** vinyl grafted polyurethane; isophorone **diisocyanate** polyurethane vinyl grafted

IT Adhesives

Coating materials

(carboxy group-contg. vinyl-grafted block **polyoxyalkylene** -polyurethanes as, with good soly. in aq. alkali)

IT Textiles

(**finishes** for, carboxy group-contg. vinyl-grafted block **polyoxyalkylene**-polyurethanes as, with good soly. in aq. alkali)

IT Urethane polymers, preparation

RL: PREP (Preparation)

(**polyoxyalkylene**-, block, carboxy-contg., vinyl compd.-grafted, manuf. of, with good soly. in aq. alkali)

IT 143150-01-0DP, hydrolyzed

RL: IMF (Industrial manufacture); PREP (Preparation)

(manuf. of, with good soly. in aq. alkali)

IT 143222-23-5P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and graft polymn. of, with vinyl acetate)

L36 ANSWER 35 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1990:517034 HCAPLUS

DN 113:117034

TI **Finishing** fabrics at low temperatures with good washfastness

IN Imai, Tsutomu

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M015-568

ICS D06M013-395

CC 40-9 (**Textiles** and Fibers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02091274	A2	19900330	JP 1988-238186	19880922
PRAI	JP 1988-238186		19880922		
AB	In the title process, fabrics are treated with <b>finishes</b> comprising emulsion of <b>polyisocyanates</b> contg. free <b>isocyanate</b> groups, polyurethanes contg. <b>polyoxyethylene</b> blocks, and <b>finishing</b> agents. Thus, 197 parts hexamethylene <b>diisocyanate</b> -derived isocyanurate-type <b>polyisocyanate</b>				

- (I) was treated with 390 parts **polyoxyethylene** mono-Me ether and 67.5 parts Diadol 115L (C11, C13, C15 synthetic alc.) to give a blocked polyurethane, 8 parts of which was mixed with 100 parts I (NCO content 21.3%) and H2O to give an emulsion (A) with solids content 45%. A cotton broadcloth was treated with an aq. compn. contg. 10% **dimethyloldihydroxyethylene** urea and 2% emulsion A to pickup 80%, dried, and heat treated 3 min at 150.degree. to give a crease-resistant fabric with wrinkle recovery angle (JIS L-1059, Monsanto method) 277.degree. and 263.degree. (after 6 washings) and tear strength 658 g, vs. 272, 235, and 651, resp., for the fabric treated using a blocked **polyisocyanate** emulsion instead of the emulsion A.
- ST creaseproofing cotton low temp; washfastness creaseproof cotton textile; **polyisocyanate** creaseproofing agent cotton; polyurethane blocked creaseproofing agent cotton
- IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (cotton or rayon blends, creaseproofing or resin **finishing** of, with compns. contg. nonblocked **polyisocyanates** with good washfastness)
- IT Textile easy-care **finishing**  
 (of cotton and cotton-polyester blend fabrics, with **finishes** contg. nonblocked **polyisocyanates**, with good washfastness)
- IT Waterproofing  
 (of polyester or cotton fabrics, with **finishes** contg. fluorocarbons and nonblocked **polyisocyanates**, with good washfastness)
- IT Rayon, uses and miscellaneous  
 RL: USES (Uses)  
 (polyester blends, resin **finishing** of, with compns. contg. nonblocked **polyisocyanates**, with good washfastness)
- IT Urethane polymers, uses and miscellaneous  
 RL: USES (Uses)  
 (resin-**finishing** agents, for cotton and cotton blend fabrics, washfastness improvement of)
- IT Textiles  
 (cotton, resin **finishing** of, with compns. contg. nonblocked **polyisocyanates**, at low temp., with good washfastness)
- IT Textiles  
 (cotton-polyester, resin **finishing** of, with compns. contg. nonblocked **polyisocyanates**, at low temp., with good washfastness)
- IT Urethane polymers, uses and miscellaneous  
 RL: USES (Uses)  
 (**polyoxyethylene**-, **finishes**, contg. nonblocked **polyisocyanates**, for textiles, washfastness)
- IT 1854-26-8, **Dimethyloldihydroxyethyleneurea**  
 RL: USES (Uses)  
 (creaseproofing agents for cotton textiles, washfastness improvement of)
- IT 107-22-2D, Ethanedial, polymers  
 RL: USES (Uses)  
 (creaseproofing agents, for cotton and cotton-polyester blend fabrics, washfastness improvement of)
- IT 85305-47-1, Beckamine LF-K 129202-49-9, Beckamine NF 8  
 RL: USES (Uses)  
 (creaseproofing agents, for cotton and cotton-polyester blend fabrics, washfastness improvement on)
- IT 822-06-0D, Hexamethylene **diisocyanate**, polyisocyanurate derivs.  
 37047-76-0 103570-33-8  
 RL: USES (Uses)

- (emulsions, **finishes** contg., for treatment of textiles at low temps. with good washfastness)
- IT 112-92-5D, 1-Octadecanol, reaction products with hexamethylene **diisocyanate** cyclic trimer and **polyoxyethylene** mono-Me ether 584-84-9D, reaction products with **polyoxyethylene** mono-Me ether and higher alcs. 3779-63-3D, Hexamethylene **diisocyanate** cyclic trimer, reaction products with **polyoxyethylene** mono-Me ether and stearyl alc. 4098-71-9D, Isophorone **diisocyanate**, reaction products with polyoxypropylene mono-Bu ether and **polyoxyethylene** mono-Me ether 9003-13-8D, reaction products with isophorone **diisocyanate** and **polyoxyethylene** mono-Me ether 9004-74-4D, reaction products with **polyisocyanates** and higher alcs. or polyoxypropylene ethers 62765-59-7D, Diadol 115L, reaction products with **polyisocyanates** and **polyoxyethylene** monomethyl ether 71714-62-0D, Diadol 135, reaction products with 2,4-tolylene **diisocyanate** and **polyoxyethylene** mono-Me ether
- RL: USES (Uses)  
(**finishes** contg. **polyisocyanates**, for treatment of textiles at low temps. with good washfastness)
- IT 9004-34-6  
RL: USES (Uses)  
(rayon, polyester blends, resin **finishing** of, with compns. contg. nonblocked **polyisocyanates**, with good washfastness)
- IT 79-10-7D, 2-Propenoic acid, esters, polymers 1017-56-7, Beckamine MA 112771-55-8, Vondic 1670 121274-13-3, Voncoat 3380  
RL: USES (Uses)  
(resin-**finishing** agents, for cotton and cotton blend fabrics, washfastness improvement of)
- IT 82643-06-9, Dicgard F 70  
RL: USES (Uses)  
(waterproofing agents, for polyester and cotton fabrics, washfastness improvements of)
- IT 112-92-5D, 1-Octadecanol, reaction products with hexamethylene **diisocyanate** cyclic trimer and **polyoxyethylene** mono-Me ether  
RL: USES (Uses)  
(**finishes** contg. **polyisocyanates**, for treatment of textiles at low temps. with good washfastness)
- RN 112-92-5 HCAPLUS  
CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 36 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
AN 541110 TEXTILETECH  
DN 199006173  
TI Structurally Dyed Polyesters Made from Styrene Nitroxide.  
AU Maslosh V. Z.; Zubkova L. P.; Goncharova E. M.; Myakukhina V. T.; Popenko G. V.; Kudryukov Y. P.; Pashchenko V. L.  
SO Plasticheskie Massy, No. 4: 9-11; E1-E6 (1989). Reference(s): 3 refs.  
CODEN: PLMSAI  
DT Journal  
LA Russian; English  
NTE Trans. No. 4961.  
AB Saturated polyester resins were synthesized by polycondensation in the presence of styrene nitroxide. These resins were then reduced and

diazotized. An aromatic **alcohol**, or amine, was reacted with the diazo compound with structurally dyed polyesters as a result. These resins are used in the production of colored **polyurethane** foams. The presence of styrene nitroxide is critical in modifying the physicommechanical properties of the resin for structural dyeing.

CC D2 Coloration

SH 1650 DYEING--POLYESTER FIBERS: structurally dyed polyesters for

**polyurethane** foams aided by styrene nitroxide

0720 CHEMICAL AIDS TO PROCESSING: styrene nitroxide added to structurally dyed polyesters for **polyurethane** foams

2300 FOAMS: structurally dyed polyesters for **polyurethane** foams aided by styrene nitroxide

3810 POLYESTERS: structurally dyed polyesters for **polyurethane** foams aided by styrene nitroxide

CT CHEMICAL AIDS TO PROCESSING; DYEING; **FINISHING**; FOAMS;

PLASTICS; POLYESTER FIBERS; POLYESTER POLYMERS; POLYESTERS;

**POLYURETHANES**; RESINS; STYRENE; TABLES DATA; THERMOPLASTICS

L36 ANSWER 37 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology

AN 530786 TEXTILETECH

DN 198905867

TI INVESTIGATION OF THE TECHNOLOGICAL PROPERTIES OF COTTON SEWING THREAD WITH DIFFERENT KINDS OF CHEMICAL **FINISHING**.

AU Samokhina V. P.; Veselov V. V.

CS Ivanovo Text. Inst

SO Izvestiia Vysshikh Uchebnykh Zavedenii Tekhnologiya Legkoi Promyshlennosti, 31, No. 5(185): 45-47 (1988). Reference(s): 2 refs.

CODEN: IVULAU

DT Journal

LA Russian

AB Three preparations were used to **finish** cotton sewing threads:

two types of **polyurethane** latex aqueous solutions, PUL-1 and PUL-2 (30 grams/liter), and polyvinyl **alcohol** (5 grams/liter).

Ekstra sewing thread (trademark 40) was soaked in these solutions, squeezed, dried, and wound on a spool. The threads were examined for break load, break length, deformation, shrinkage, hardness, resistance to abrasion in the needle, and resistance to stress. They were then compared to several industrial threads **finished** with a paraffin-stearin using a synthetic heat-resistant low-molecular rubber preparation.

CC B3 Yarn modification

SH 4270 SEWING THREAD: cotton. **finished** with PUL-1, PUL-2, and polyvinyl **alcohol**. properties compared with industrial threads

1110 COTTON YARN: cotton. **finished** with PUL-1, PUL-2, and

polyvinyl **alcohol**. properties compared with industrial threads

4380 SIZING AGENTS: PUL-1, PUL-2, and polyvinyl **alcohol** used on cotton threads. properties compared with industrial threads

CT COTTON YARNS; LATEXES; NATURAL YARNS; POLYVINYL **ALCOHOL**; SEWING THREADS; SIZES; YARNS

L36 ANSWER 38 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1986:462169 HCAPLUS

DN 105:62169

TI Soilproofing agents for textiles

IN Kawakami, Shoichi; Matsuo, Hitoshi

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09K003-00

ICS C09K003-18; D06M015-568; D06M015-576

CC 40-9 (Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61023674	A2	19860201	JP 1984-144163	19840713
	JP 03070757	B4	19911108		
PRAI	JP 1984-144163		19840713		

AB The reaction products of an **isocyanate** compd. having .gtoreq.2 functional groups, a compd. contg. polyfluoroalkyl groups and **isocyanate**-reactable groups, a compd. contg. epoxy groups and **isocyanate**-reactable groups, and a compd. contg. hydrophilic groups and **isocyanate**-reactable groups are useful as washfast soilproofing agents for textiles. Thus, 47.8 g OCN(CH<sub>2</sub>)<sub>6</sub>N[CONH(CH<sub>2</sub>)<sub>6</sub>NCO]<sub>2</sub> was treated with 51.4 g CnH<sub>2n+1</sub>CH<sub>2</sub>CH<sub>2</sub>OH (n is 6, 8, 10, and 12), 7.4 g glycidol 7.4, and ethylenediamine-ethylene oxide adduct to give a product (I) with NCO conversion 100%. A 65:35 polyester-cotton blend fabric was treated with an aq. dispersion contg. I, squeezed to **finish** content 5 mg/g, dried, and heat-treated 1 min at 160.degree. to give a fabric with soil-resistance rating (AATCC 130-1970) 5 and 5 (after washing for 5 cycles).

ST **polyisocyanate** deriv soilproofing agent; washfastness textile soilproofing; polyester cotton blend soilproofing; fluoroalkylethanol deriv soilproofing agent

IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (cotton blends, soilproofing agents for, **polyisocyanate** compd.-polyfluoroalkyl ethanol-epoxy compd.-nonionic hydrophilic compd. reaction products as, washfast)

IT Soilproofing  
 (agents, **polyisocyanate** compd.-polyfluoroalkyl ethanol-epoxy compd.-nonionic hydrophilic compd. reaction products as, for textiles, washfast)

IT 64-17-5D, polyfluoroalkyl derivs., reaction products with **polyisocyanates**, glycidol or furfuryl **alc.**, and nonionic hydrophilic compds. 98-00-0D, reaction products with **polyisocyanates**, polyfluoroalkyl ethanol and nonionic hydrophilic compds. 556-52-5D, reaction products with **polyisocyanates**, polyfluoroalkyl ethanol and nonionic hydrophilic compds. 822-06-0D, reaction products with polyfluoroalkyl ethanol, furfuryl **alc.** and nonionic hydrophilic compds. 4035-89-6D, reaction products with polyfluoroalkyl ethanol, glycidol and nonionic hydrophilic compds. 25322-68-3D, reaction products with **polyisocyanates**, polyfluoroalkyl ethanol and furfuryl **alc.** or glycidol 25618-55-7D, **ethoxylated**, reaction products with **polyisocyanates**, polyfluoroalkyl ethanol and furfuryl **alc.** or glycidol 27014-42-2D, reaction products with **polyisocyanates**, polyfluoroalkyl ethanol and furfuryl **alc.** or glycidol 42503-45-7D, reaction products with **polyisocyanates**, polyfluoroalkyl ethanol and furfuryl **alc.** or glycidol

RL: USES (Uses)  
 (soilproofing agents, for polyester-cotton blend fabrics)

L36 ANSWER 39 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1985:407717 HCAPLUS

DN 103:7717

TI Shrinkproofing of wool fabrics

PA Shikishima Spinning Co., Ltd., Japan

SO Jpn. Kokai Tokyo Koho, 15 pp.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290



CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM D06M013-42  
 CC 40-9 (Textiles)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60045678	A2	19850312	JP 1983-151065	19830818
	JP 61043467	B4	19860927		
PRAI	JP 1983-151065		19830818		
AB	Washfast shrink-resistant wool fabrics are prepd. by treating the fabric with a carbamate ester contg. .gtoreq.2 sulfite-blocked isocyanate groups and .gtoreq.1 C.gtoreq.12 alkyl groups and then heat-treating the fabric. Thus, 81.0 g stearyl alc. was treated with 87.9 g di-Ph ether 2,4,4'- <b>triisocyanate</b> to give a product which was treated with 19.0 g Na pyrosulfite to give an ester (I). Wool fabric was immersed in an aq. compn. contg. I to 100% pickup, dried, and heat-treated 2 min at 160.degree. to give a shrink-resistant fabric with good washfastness.				
ST	carbamate ester shrinkproofing agent wool; shrinkproofing wool; washfastness shrinkproof wool; stearyl alc ester shrinkproofing agent; isocyanate ester shrinkproofing agent wool				
IT	Shrinkproofing				
	(agents, carbamate esters contg. blocked isocyanates as, for wool)				
IT	7681-57-4	16731-55-8			
	RL: USES (Uses)				
	(isocyanate group-contg. carbamate esters modified by)				
IT	112-92-5D, reaction products with di-Ph ether 2,4,4'- <b>triisocyanate</b> , sodium pyrosulfite-blocked 135-38-6D, reaction products with stearyl alc., sodium pyrosulfite-blocked 822-06-0D, reaction products with poly(oxyethylene) sorbitan ester monooleate, sodium pyrosulfite-blocked 9005-65-6D, reaction products with hexamethylene diisocyanate, sodium pyrosulfite-blocked 26471-62-5D, reaction products with glycerol monolinoleate, potassium pyrosulfite-blocked 26545-74-4D, reaction products with TDI, potassium pyrosulfite-blocked				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(shrinkproofing agents, for wool)				
IT	112-92-5D, reaction products with di-Ph ether 2,4,4'- <b>triisocyanate</b> , sodium pyrosulfite-blocked				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(shrinkproofing agents, for wool)				
RN	112-92-5	HCAPLUS			
CN	1-Octadecanol (8CI, 9CI) (CA INDEX NAME)				

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 40 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
 AN 1985:8601058 WTEXTILES  
 TI Toxicity of fire effluents from textiles and upholstery materials  
 AU Kallonen R.; Von Wright A.; Tikkanen L.; Kaustia K.  
 CS VTT.  
 SO Journal of Fire Sciences, 1985, 3, No.3, May/June, 145-160 (16 pages)., (1985)  
 DT Journal; Article; (new work)  
 LA English  
 AV BTTG (Shirley Institute)  
 AB The toxicities of the airborne combustion products of 11 textiles and 6

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

upholstery materials at medium temperatures (500-700 degrees C) were examined according to West German standard DIN 53436 using rats as experimental animals. Also the chemical composition of the combustion products was determined. According to the results obtained there were some cases in which one or more individual components (mainly hydrogen cyanide and carbon monoxide) of the airborne combustion products could be shown to be the main cause of toxicity. In some cases no clear correlation between the carbon monoxide concentration and carboxyhaemoglobin (COHb) levels could be observed. With **polyurethane** and flame-retardant-treated polyester fibre-fill the COHb levels were surprisingly high despite the low carbon monoxide amounts produced in the experimental conditions. The reverse was true with, for example, flame-retardant-treated cotton/viscose, which caused relatively low COHb levels in spite of high production of carbon monoxide. No fatal toxic effect could be linked with hydrochloric acid even at high concentration.

CT WATER REPELLENCY **FINISHES**; UPHOLSTERY FABRICS; FABRICS; BURNING; GASES; SMOKE EMISSION; TOXICITY; QUALITATIVE ANALYSIS; TESTING; COTTON; VISCOSE RAYON; WOOL; POLYESTER; MODACRYLIC; POLY (VINYL **ALCOHOL**); POLY (VINYL CHLORIDE); POLYMER ALLOYS; CORDELAN (TN); FLAME RESISTANT (TYPE); MULTICOMPONENT; PYROVATEX (TN); FLAME RESISTANCE AGENTS; PHOSPHONOPROPIONIC ACID AMIDES; SANDOFLAM (TN); STUFFING (FILLER); FIBRES; CARBON MONOXIDE; HYDROGEN CYANIDE; HYDROGEN CHLORIDE; GAS FUMES

L36 ANSWER 41 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1984:211596 HCAPLUS

DN 100:211596

TI Soilproofing agents for fabrics

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C09K003-00; C09K003-18; D06M013-38; D06M015-52

CC 40-9 (**Textiles**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58189284	A2	19831104	JP 1982-71298	19820430
	JP 02060703	B4	19901218		
PRAI	JP 1982-71298		19820430		

AB Polyfluoroalkyl compds. (RZZ1CONH)aZ2(NHCOZ1R1)b(NHCOZ1R2)3-a-b, where R is a C1-20 polyfluoroalkyl group, Z is a divalent hydrocarbon group, Z1 is O, S, or NR3, R3 is H or a monovalent hydrocarbon group, Z2 is a trivalent hydrocarbon group, R1 is stearyl group, R2 is a monovalent hydrocarbon group, a is 1-2, and b is 1-2, are useful as washfast soilproofing agents for fabrics. Thus, 95.6 g OCN(CH2)6N[CONH(CH2)6NCO]2 was treated with 205.6 g CnF2n+1CH2CH2OH (n is 6, 8, 10, and 12) and 54.0 g n-C18H37OH to give a polyfluoroalkyl compd. (I). A nylon knit was treated with an emulsion contg. 0.5% (solids) I, squeezed to 90% pickup, and dried to give a soil-resistant, water-resistant, and oil-resistant fabric with good fastness to washing and dyeing.

ST polyfluoroalkyl compd soilproofing agent; nylon fabric soilproofing; polyamide fabric soilproofing; oilproofing nylon fabric; waterproofing nylon fabric; **triisocyanate** deriv soilproofing agent; washfastness nylon fabric soilproofing

IT Polyamide fibers, uses and miscellaneous

RL: USES (Uses)

(soilproofing agents for, **triisocyanate** deriv. reaction

products with polyfluoro alcs. and stearyl alc. as, washfast)

IT Carpets  
(soilproofing agents for, **triisocyanate** derivs. reaction products with polyfluoro alcs. and stearyl alc. as, washfast)

IT Oilproofing  
Soilproofing  
Waterproofing  
(agents, **triisocyanate** deriv. reaction products with polyfluoro alcs. and stearyl alc. as, for nylon fabrics, washfast)

IT 64-17-5D, 2-polyfluoroalkyl derivs., reaction products with polyfluoro alcs., stearyl alc. and **triisocyanates 112-92-5D**, reaction products with **triisocyanate** compd. and polyfluoro alcs. 4035-89-6D, reaction products with polyfluoro alcs. and stearyl alc. 90267-12-2D, polyfluoroalkyl derivs. 90267-13-3D, polyfluoroalkyl derivs. 90267-14-4D, polyfluoroalkyl derivs. 90267-15-5D, polyfluoroalkyl derivs. 90267-16-6D, polyfluoroalkyl derivs. 90267-17-7D, polyfluoroalkyl derivs.  
RL: USES (Uses)  
(soilproofing agents, for nylon fabrics, washfast)

IT **112-92-5D**, reaction products with **triisocyanate** compd. and polyfluoro alcs.  
RL: USES (Uses)  
(soilproofing agents, for nylon fabrics, washfast)

RN 112-92-5 HCAPLUS  
CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 42 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
AN 407447 TEXTILETECH  
DN 198107501  
TI METHOD FOR PREVENTING CREASING OF MANMADE FIBER FABRICS DURING WET PROCESSING.  
IN Canela J.; Gerber H.  
PA Sandoz.  
SO Patent Information: BP 1583795, 4 Feb 1981  
Application Information: Switzerland (CH) 14465.  
Priority Information: 17 Nov 1976  
DT Patent  
LA English  
AB The creasing tendency of the fabrics during wet processing is considerably reduced or completely eliminated by adding to the liquor certain water soluble or water dispersible **polyurethane** fiber lubricants. The **polyurethanes** are the reaction products of a diisocyanate with an ammonia derivative, polyamine, urea, polyamide, aminoamide, and/or an aminoalcohol, preferably a polyoxylated polyamine. The treatment can be effected simultaneously with dyeing, optical brightening, bleaching, washing, or fixation, preferably during winch or jet dyeing.  
CC PD1 Desizing-bleaching  
SH **FINISHING**: manmade fiber fabrics. crease prevention lubricant  
DYEING--MANMADE FIBERS: crease prevention lubricant  
CHEMICAL AIDS TO PROCESSING: **polyurethane** lubricant. crease prevention during wet processing  
CT **ALCOHOLS**; AMIDES; AMINES; AMMONIA; AMMONIUM COMPOUNDS;  
BLEACHING; CHEMICAL AIDS TO PROCESSING; CREASING; DERIVATIVES CHEMICAL;  
DYEING; ENGLISH; FABRICS; **FINISHING**; FIXATION DYES;

ISOCYANATES; LUBRICANTS; MANMADE FIBERS; OPTICAL BRIGHTENING; PATENT;  
 PLEATING; **POLYURETHANES**; REDUCTION; SIMULTANEOUS DYEING AND  
**FINISHING**; UREA; WASHING; WATER; WATER SOLUBILITY; WET TREATMENT

L36 ANSWER 43 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1980:606115 HCAPLUS

DN 93:206115

TI Liquid agent and methods for dirt and spot removing equipment of textile floor coverings or textile starting material

IN Patel, Kalyanji Ukabhai

PA Minnesota Mining and Mfg. Co., USA

SO Ger. Offen., 34 pp.

CODEN: GWXXBX

DT Patent

LA German

IC D06M015-38; D06M013-16

CC 39-10 (Textiles)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3002369	A1	19800807	DE 1980-3002369	19800123
	DE 3002369	C2	19930107		
	US 4264484	A	19810428	US 1979-101515	19791221
	DE 3051168	C2	19980827	DE 1980-3051168	19800123
PRAI	US 1979-6252		19790124		
	US 1979-101515		19791221		
	DE 1980-3002369		19800123		
AB	Polymers free of F atoms in nonvinyl positions and having a main transition temp. >25.degree. and esters contg. fluoroaliph. residues and aliph.-bound Cl are used as oil- and waterproofing agents for pile carpets. Thus, treatment of C8F17SO2NMeCH2CH2[OCH2CH(CH2Cl)]OH (n = 1-2) (I) with citric acid gave HOC[CH2CO2[CH2(CHCl)CH2O]nCH2CH2NMeSO2C8F17]2[CO2[CH2(CH2ClCH2O)nCH2CH2NMeSO2C8F17] (II). Nylon, acrylic, polypropylene, and polyester pile carpets <b>finished</b> with compns. contg. 0.7% II, 1.4% copolymer [69229-65-8] (prepd. from Me methacrylate, Et methacrylate, and CH2:CMcCO2CH2CH(OH)CH2NMe3Cl) and optionally 0.5% Ethomeen S/12 Et sulfate salt antistatic agent displayed good resistance to soiling. Carbamic acid esters prepd. by treating an <b>alc.</b> such as I with 2,4-TDI [584-84-9] and(or) isophorone <b>diisocyanate</b> were also suitable for providing carpets with soil-resistant <b>finishes</b> .				
ST	soilproofing agent pile carpet; polyamide carpet soilproofing agent; nylon fiber soilproofing agent; polypropylene carpet soilproofing agent; polyester carpet soilproofing agent; acrylic carpet soilproofing agent; synthetic fiber soilproofing agent; acrylic polymer soilproofing agent; citric acid ester soilproofing agent; carbamic acid ester soilproofing agent; fluorooctanesulfonamide deriv soilproofing agent				
IT	Acrylic fibers, uses and miscellaneous Polyamide fibers, uses and miscellaneous Polyester fibers, uses and miscellaneous Polypropene fibers, uses and miscellaneous RL: DEV (Device component use); USES (Uses) (carpets from, soilproofing agents for)				
IT	Soilproofing (agents, for synthetic fiber pile carpets)				
IT	Carpets (pile, soilproofing agents for)				
IT	26686-93-1 RL: RCT (Reactant); RACT (Reactant or reagent) (hydrochlorination of)				

- IT 75518-90-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and reaction of, with **diisocyanates**)
- IT 584-84-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with methyl(chlorohydroxypropyl)perfluorooctanesulfonamide)
- IT 124-04-9D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide  
RL: USES (Uses)  
(soilproofing agents, for pile carpet)
- IT 77-92-9D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide 110-16-7D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide 584-84-9D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide 4035-89-6D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide 4098-71-9D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide 24448-09-7D, reaction products with citric acid and epichlorohydrin 68239-73-6D, reaction products with **chlorohydroxyalkyl** derivs. of perfluorooctanesulfonamide and TDI 69229-65-8 75502-30-6  
RL: USES (Uses)  
(soilproofing agents, for pile carpets)
- IT 106-89-8D, reaction products with N-methyl-N-hydroxyethylperfluorooctanesulfonamide and citric acid or **diisocyanates**  
RL: USES (Uses)  
(soilproofing agents, for pile textiles)
- L36 ANSWER 44 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
AN 395950 TEXTILETECH  
DN 198015950  
TI STABILIZATION OF FLAME RETARDANT PREMIX FOR **POLYURETHANE**.  
IN Depaul H. V.  
PA Air Products & Chem., Inc.  
SO Patent Information: US 4225453, 30 Sep 1980  
Application Information: United States (US) Appl. No. 921422  
Priority Information: 3 Jul 1978  
DT Patent  
LA English  
AB A premix composition prepared for admixture with an isocyanate to form rigid flame retardant **polyurethane** products comprises halogenated polyol; tertiary amine catalyst, organic blowing agent, cell stabilizer, organic sulfur compound selected from the group consisting of thiourea of thiocarbamate compounds; and at least one unsaturated carbon compound selected from the group consisting of unsaturated hydrocarbon unsaturated higher fatty and polyester **alcohols**.  
CC PD3 Chemical **finishing**  
SH ELASTOMERS: STABILIZATION OF FLAME RETARDANT PREMIX FOR **POLYURETHANE**  
FLAMEPROOFING AGENTS: STABILIZATION OF FLAME RETARDANT PREMIX FOR **POLYURETHANE**  
CT ELASTOMERS; **FINISHING** AGENTS; FLAMEPROOFING AGENTS; POLYMERS
- L36 ANSWER 45 OF 63 TEXTILETECH COPYRIGHT 2003 Inst. of Textile Technology  
AN 385727 TEXTILETECH  
DN 198005727  
TI **POLYURETHANES** PREPARED FROM **ALCOHOLS** AND HYDROCARBON **POLYISOCYANATES** USED IN SYNTHETIC OR SEMISYNTHETIC TEXTILE WET

## TREATMENT PROCESSES.

IN Canela J.; Gerber H.  
 PA Sandoz Ltd.  
 SO Patent Information: US 4186119, 29 Jan 1980  
 Priority Information: 15 Sep 1978  
 DT Patent  
 LA English  
 CC PD3 Chemical **finishing**  
 SH ELASTOMERS: **POLYURETHANES** FOR WET TMT OF SYNTHETIC TEXTILES  
**FINISHES: POLYURETHANES** FOR WET TMT OF SYNTHETIC  
 TEXTILES  
 CT ELASTOMERS; **FINISHES**; POLYMERS

L36 ANSWER 46 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1979:524830 HCAPLUS

DN 91:124830

TI Cationic emulsifiers

IN Kolbe, Joachim; Kortmann, Wilfried; Luxem, Hans

PA Bayer A.-G., Fed. Rep. Ger.

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

IC B01F017-22; D06M013-40

CC 39-8 (**Textiles**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2757916	A1	19790705	DE 1977-2757916	19771224
	EP 2722	A1	19790711	EP 1978-101654	19781213
	EP 2722	B1	19800917		
	R: DE, FR, GB, IT, NL				
	JP 54092582	A2	19790721	JP 1978-157735	19781222
	BR 7808442	A	19790821	BR 1978-8442	19781222
PRAI	DE 1977-2757916		19771224		

AB Cationic emulsifier compns. used in spin **finishes** for polyamide, polyester, and acrylic-wool yarns comprise a mixt. of a fatty acid amide 5-70, a nonionic emulsifier 20-50, a quaternary ammonium compd. 0-10, and an aliph. carboxylic acid 5-20%. Thus, an emulsifier mixt. was prepd. from amides from tech. behenic acid-triethylenetetramine adduct 86.3 and tech. stearic acid-3-amino-1-(dimethylamino)propane adduct 20.0, **ethoxylated** tech. lauryl alc. 43.6, **ethoxylated** oleyl alc. 5.2, N-tetradecyl-N,N-dimethyl-N-benzylammonium chloride [139-08-2] 5.2, HOAc 23.2, and stearic acid [57-11-4] 4.2 kg to give a waxlike product. The waxlike product was combined with paraffin oil to give a melt and H2O was added to form a fluid and stable emulsion. The emulsion was dild. with H2O and used in spinning and stretching operations on polyamide fibers.

ST cationic emulsifier spin prepn; synthetic fiber spinning prepn emulsifier; polyamide fiber spinning prepn emulsifier

IT Paraffin oils

RL: USES (Uses)

(spin **finishes** contg., cationic emulsifiers for)

IT Acrylic fibers, uses and miscellaneous

RL: USES (Uses)

(spin **finishes** for wool and, cationic emulsifiers for)

IT Polyamide fibers, uses and miscellaneous

Polyester fibers, uses and miscellaneous

RL: USES (Uses)

(spin **finishes** for, cationic emulsifier compns. for)

- IT Emulsifying agents  
(cationic, for spin **finishes** for fibers)
- IT 57-11-4, uses and miscellaneous 57-11-4D, reaction products with amino(dimethylamino)propane 109-55-7D, reaction products with stearic acid 112-24-3D, reaction products with behenic acid and **hexamethylenediisocyanate** 112-85-6D, reaction products with **hexamethylenediisocyanate** and triethylenetetramine 139-08-2 822-06-0D, reaction products with behenic acid and triethylenetetramine 9004-98-2 25322-68-3D, fatty alkyl monoethers  
RL: USES (Uses)  
(cationic emulsifying comps. contg., for spin **finishing** of fibers)
- L36 ANSWER 47 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
AN 1978:7900184 WTEXTILES  
TI Chemical modification of polymers with flame-retardant compounds  
AU Tesoro G.C.  
CS MIT.  
SO Journal of Polymer Science: Macromolecular Reviews, 1978, 13, 283-353 (71 pages), (1978)  
DT Journal; General Review; General Review  
LA English  
AV BTTG (Shirley Institute)  
CT THERMAL DEGRADATION; FLAME RESISTANCE; BURNING; FLAME RESISTANCE TESTING; CHEMICAL MODIFICATION (POLYMERS); CHEMICAL MODIFICATION (FIBRES); REACTIONS (CHEMICAL); HEAT RESISTANCE; OXYGEN INDEX VALUES; ADD ON; WASHFASTNESS (OF **FINISH**); SMOKE EMISSION; MOLECULAR STRUCTURE; END USE PROPERTIES; WOOD; PAPER; ZIRPRO TREATMENTS (TN); FLAME RESISTANCE AGENTS; FLAME RESISTANCE TREATMENTS; TITANIUM COMPOUNDS; ZIRCONIUM COMPOUNDS; CARPET YARNS; YARNS; BLENDS (FIBROUS MATERIALS); THERMOPLASTIC RESINS; POLYSTYRENE; THERMOSETTING RESINS; FOAMS; URETHANE FOAMS; ELASTOMERS; COATINGS (SUBSTANCES); GRAFT POLYMERIZATION; COATING (PROCESS); TOXICITY; DEGRADATION PRODUCTS; COTTON; FABRICS; PYROVATEX (TN); PHOSPHORUS COMPOUNDS; ANTIMONY TRIOXIDE; TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM CHLORIDE; THPC UREA; PHOSPHAZENES; FYROL 76 (TN); PHOSPHATES; BROMINE COMPOUNDS; PHOSPHONAMIDES; AZIRIDINYL PHOSPHINE OXIDE; VISCOSE RAYON; FIBRES; ADDITIVES (CHEMICAL); VISCOSE SOLUTION; DOPE (POLYMER); CELLULOSE TRIACETATE; CELLULOSE SECONDARY ACETATE; WOOL; POLYESTER; POLY (ETHYLENE GLYCOL TEREPHTHALATE); NYLON 6; NYLON 66; POLYACRYLONITRILE; MODACRYLIC; POLYOLEFIN; POLY (VINYL CHLORIDE); POLY (VINYLIDENE CHLORIDE); **POLYURETHANE** ELASTOMER; QIANA (TN); POLYAMIDE; POLY (VINYL **ALCOHOL**)
- L36 ANSWER 48 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
AN 1978:7905031 WTEXTILES  
TI Specialist **finishing** of synthetic fibre industrial fabrics  
AU Berczi C.N.; Green P.J.  
CS MILLIKEN.  
SO 'Textile finishing' (Textile Institute), Manchester, UK, 1978 (ISBN 0 900739 29 0), 52 pages, (1978)  
ISBN: 0900739290  
DT Journal; Book; Book; (new work); (Technical Information)  
LA English  
AV BTTG (Shirley Institute)  
CT ADHESIVE BONDING; CONDENSATION (CHEMICAL); REACTIONS (CHEMICAL); ADD ON; BOND STRENGTH (ADHESIVE); FIBRE SURFACE; SOLUBILITY; SURFACE TENSION; CONTACT ANGLES; END USE PROPERTIES; PROCESS VARIABLES; SYNTHETIC; KNITTED FABRICS; FABRICS; COATED FABRICS; TYRE FABRICS; WOVEN FABRICS; POLYAMIDE; POLYESTER; VISCOSE RAYON; TYRE CORDS; POLY (VINYL **ALCOHOL**); NYLON 6; NYLON 66; AROMATIC POLYAMIDE; ADHESION; RUBBER; ELASTOMERS;

BONDING AGENTS (GENERAL); LATICES; RESORCINOL FORMALDEHYDE RESINS;  
**POLYISOCYANATES**; COATING (PROCESS); TIME; TEMPERATURE; HYDROGEN  
 ION CONCENTRATION; CURING; RATE

L36 ANSWER 49 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1977:30966 HCAPLUS

DN 86:30966

TI Dry-cleaning composition and process

IN Campbell, Ian; Daniels, Norman; Topham, Arthur; Tury, Bernard

PA Imperial Chemical Industries Ltd., UK

SO Brit., 9 pp.

CODEN: BRXXAA

DT Patent

LA English

IC C11D007-60

CC 39-9 (Textiles)

Section cross-reference(s): 46

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1445980	A	19760811	GB 1972-50303	19731030
PRAI	GB 1972-50303		19731030		

AB Improvements in the soil-suspending properties of dry cleaning compns. contg. a halocarbon solvent and optional sulfosuccinate ester Na salt were achieved by incorporation of the reaction product of diphenylmethane or tolylene diisocyanate with 1 or 2 adducts of **ethylene oxide** with 2 C13-18 aliph. alcs. and optional diethylene glycol monoethyl ether. Thus, 10 g cotton flannelette was treated to 140% wet pick up with 4 l. of a mixt. of 20 g tallow fat, 20 g liq. paraffin, carbon black, and CHCl<sub>3</sub> and dried. The fabric and 2 g unsoiled fabric were immersed in a 0.1% soln. in 300 ml Cl<sub>2</sub>CFCF<sub>2</sub>Cl of the reaction product of a mixt. of 236.5 parts of an adduct of cetyl-stearyl alc. with 17 mol. proportions **ethylene oxide** and 91 parts of an adduct of oleyl-cetyl oxide with 2.5 mol. proportions **ethylene oxide** contg. 1% H<sub>2</sub>O, and 39 parts tolylene diisocyanate. After 10 min under simulated dry-cleaning conditions the fabric was rinsed 5 min in Cl<sub>2</sub>CFCF<sub>2</sub>Cl, squeezed, and dried. In a Ziess Elrepho Reflectometer the no. of points rise and fall in the Blue reflectance after cleaning of the soiled and unsoiled fabric, resp., were 8.6-10.5 and 20.0-25.0, resp., compared with 3.0 and 45.5, resp., for a similar polyurethane-free compn. Several other examples were also given.

ST polyurethane dry cleaning detergent; textile dry cleaning; cotton flannelette dry cleaning; wool fabric dry cleaning; sulfosuccinate polyurethane dry cleaning

IT Textiles

(dry-cleaning compns. for, contg. urethane-modified poly(**oxyethylene**) derivs. and sulfosuccinate)

IT 75-21-8D, alkyl ethers, reaction products with diphenylmethane or tolylene diisocyanate 112-70-9D, reaction products with poly(**ethylene oxide**) and diisocyanates 112-92-5D, reaction products with poly(**ethylene oxide**) and diisocyanates 143-28-2D, oxide deriv., reaction products with poly(**ethylene oxide**) and diisocyanates 143-28-2D, reaction products with poly(**ethylene oxide**) and diisocyanates 25322-68-3D, alkyl ethers, reaction products with diphenylmethane or tolylene diisocyanate 36653-82-4D, oxide deriv., reaction products with poly(**ethylene oxide**) and diisocyanates 36653-82-4D, reaction products with poly(**ethylene oxide**) and diisocyanates  
 RL: USES (Uses)



(dry cleaning compns. contg., as soil-suspending agent)  
 IT 5138-18-1D, ester  
 RL: USES (Uses)  
 (dry-cleaning compds. contg. **polyurethane** soil-suspending agents and)  
 IT 111-90-0D, reaction products with poly(**ethylene oxide**) and diisocyanates **629-76-5D**, reaction products with poly(**ethylene oxide**) and diisocyanates  
 RL: USES (Uses)  
 (dry-cleaning compns. contg., as soil-suspending agent)  
 IT 112-70-9D, reaction products with poly(**ethylene oxide**) and diisocyanates **112-92-5D**, reaction products with poly(**ethylene oxide**) and diisocyanates **143-28-2D**, oxide deriv., reaction products with poly(**ethylene oxide**) and diisocyanates **36653-82-4D**, oxide deriv., reaction products with poly(**ethylene oxide**) and diisocyanates  
 RL: USES (Uses)  
 (dry cleaning compns. contg., as soil-suspending agent)  
 RN 112-70-9 HCAPLUS  
 CN 1-Tridecanol (6CI, 8CI, 9CI) (CA INDEX NAME)

Me-(CH<sub>2</sub>)<sub>12</sub>-OH

RN 112-92-5 HCAPLUS  
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

RN 143-28-2 HCAPLUS  
 CN 9-Octadecen-1-ol, (9Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

Me-(CH<sub>2</sub>)<sub>7</sub>-Z-(CH<sub>2</sub>)<sub>8</sub>-OH

RN 36653-82-4 HCAPLUS  
 CN 1-Hexadecanol (9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>15</sub>-Me

IT **629-76-5D**, reaction products with poly(**ethylene oxide**) and diisocyanates  
 RL: USES (Uses)  
 (dry-cleaning compns. contg., as soil-suspending agent)  
 RN 629-76-5 HCAPLUS  
 CN 1-Pentadecanol (7CI, 8CI, 9CI) (CA INDEX NAME)

Me-(CH<sub>2</sub>)<sub>14</sub>-OH

L36 ANSWER 50 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
 AN 1976:7706579 WTEXTILES  
 TI Thermal behaviour of textiles  
 AU Slater K.  
 SO Textile Progress, 1976, 8, No.3, 1-147, (1976)  
 DT Journal; General Review; General Review  
 LA English  
 AV BTTG (Shirley Institute)  
 CT HEAT RESISTANCE; THERMAL PROPERTIES; ENVIRONMENTAL CONDITIONS;  
 ATMOSPHERIC CONDITIONS; THEORETICAL ANALYSIS; MOISTURE CONTENT; FLUID  
 FLOW; FIBRE SURFACE; FABRIC PROPERTIES; COSTS; ECONOMICS; WET BULB  
 TEMPERATURE; HOT AIR DRYING; INFRARED DRYING; CONVECTION; AIR FLOW;  
 INFRARED HEATING; MIGRATION (SUBSTANCE); TEMPERATURE DISTRIBUTION;  
 MECHANISM (FUNDAMENTAL); INFRARED SPECTROSCOPY; HYGROMETERS; FIBRE CROSS  
 SECTIONS; MICROSCOPY; ABRASION; DIMENSIONAL STABILITY; PHOTOMICROGRAPHS;  
 TENTERING; YARN TENSION; ABRASION RESISTANCE; SPECIFIC HEAT; SORPTION OF  
 WATER; HEAT OF REACTION; HYDROLYSIS; HEAT OF WETTING; HEAT OF SORPTION;  
 MODELS (DESCRIPTIVE); GARMENTS; THICKNESS; HOLLOW FIBRES; FABRIC  
 CONSTRUCTION; TRANSITIONS (POLYMERS); FINE STRUCTURE; MELTING; MELTING  
 POINT; GLASS TRANSITION TEMPERATURE; TRANSITION TEMPERATURES; STRESS  
 STRAIN PROPERTIES (PLANAR); FABRIC STRENGTH; STIFFNESS; NUCLEAR MAGNETIC  
 RESONANCE; KINETICS (CHEMICAL); DEGREE OF CRYSTALLINITY; FABRIC WEIGHT;  
 ELECTRON MICROSCOPY; ELECTRON SPIN RESONANCE; FIBRE REINFORCED  
 COMPOSITES; CHEMICAL COMPOSITION; CARPET BACKING; FOAM BACKING;  
 CARBOXYETHYLATED COTTON; CELLULOSE TRICHLOROACETATE; YARNS;  
 HYDROCELLULOSE; CELLULOSE PULP; BLENDS (FIBROUS MATERIALS); COTTON  
 LINTERS; FIBROIN (SILK); POLYVINYL DERIVATIVES; DUST; FIBRES (ALL TYPES);  
 GAS HEATING (GAS FUEL); OIL HEATING (OIL FUEL); RADIANT HEATING; FLAME  
 RESISTANCE; FIRE; FIRE HAZARDS; BURN INJURIES; SKIN IRRITATION; TOXICITY;  
 WORKS; COMBUSTION (SPONTANEOUS); STATIC ELECTRICITY; CHARRING; UPHOLSTERY  
 FABRICS; FABRICS; AFTERGLOW; SMOKE EMISSION; GAS FUMES; FLAME RESISTANCE  
 TREATMENTS; MODELS (GARMENT TEST DUMMIES); INSULATION (THERMAL); MULTIPLE  
 LAYER FABRICS; WOVEN FABRICS; FURNISHING FABRICS; UNDERLAY (CARPETS);  
 CARPETS; FLAME RESISTANCE TESTING; FABRIC SHRINKAGE; DEPOLYMERIZATION;  
 OXYGEN INDEX VALUES; FLOOR COVERINGS (PLASTIC); CHILDRENS WEAR;  
 NIGHTWEAR; FIBRE PROPERTIES; FIBRE DIAMETER; SPECIFIC GRAVITY; BREAKING  
 STRENGTH; FIBRE STRENGTH; CONDUCTIVITY (ELECTRICAL); CONDUCTIVITY  
 (THERMAL); ELASTIC MODULUS (TENSILE); STRAIN; MECHANICAL PROPERTIES;  
 PHYSICAL PROPERTIES (EXCLUDING MECHANICAL); SKIN (FIBRE); CORE (FIBRE);  
 HIGH MODULUS; STRESS; CHEMICAL MODIFICATION (FIBRES); PHOTOCHEMICAL  
 DEGRADATION; RADIATION RESISTANCE; AIRCRAFT; OXIDATION; AESTHETIC  
 PROPERTIES; MATRIX FIBRIL STRUCTURE; LIGHTFASTNESS (COLOUR); COPOLYMERS;  
 CORE SPUN YARNS; RADIATION GRAFTING; HANDLE (TEXTILE); WASHFASTNESS (OF  
**FINISH**); COLOUR; COLOUR DIFFERENCE; DRAWING (FILAMENT); DRAW  
 RATIO; CRYSTAL STRUCTURE; FIBRE ARRANGEMENT; PHYSICAL CHEMICAL  
 PROPERTIES; SPHERULITES; DEGREE OF POLYMERIZATION; AMORPHOUS REGION;  
 LAUNDERABILITY; LAUNDERABILITY TESTING; DYEING; ALKALI HYDROLYSIS;  
 CROSSLINKING; STORAGE; TYRE CORDS; FILMS; TENACITY; INITIAL MODULUS;  
 STRESS STRAIN CURVES; HYSTERESIS (MECHANICAL); CREASE RECOVERY; FATIGUE  
 RESISTANCE; SHRINKAGE; ELASTIC RECOVERY; BENDING RECOVERY; HEAT  
 TREATMENT; RELAXATION SHRINKAGE; VISCOSITY; RELAXING; ACOUSTIC  
 PROPERTIES; ELECTRICAL PROPERTIES; FRICTIONAL CHARACTERISTICS; OPTICAL  
 PROPERTIES; DIELECTRIC PROPERTIES; COEFFICIENT OF FRICTION; MOLECULAR  
 STRUCTURE; MOLECULAR WEIGHT; RIPENING (VISCOSE); HEAT SETTING  
 (SYNTHETICS); CRYSTALLITES; ANNEALING; MOLECULAR CHAIN MOVEMENT; CHAIN  
 FOLDING; DIFFERENTIAL THERMAL ANALYSIS; WEIGHT LOSS; CALORIMETRY; MASS  
 SPECTROMETRY; PHOTOMETERS; VISCOELASTICITY; GAS CHROMATOGRAPHY; AIR;  
 VACUUM; RATE; THERMAL DEGRADATION; DRYING; TEMPERATURE; TIME; AUTOMATIC  
 CONTROL; IRRADIATION; DIELECTRIC HEATING; TESTING; HEAT TRANSFER;

SIMULATION; WEARING (OF APPAREL); DEGRADATION PRODUCTS; CHEMICAL ANALYSIS; POLY (VINYL CHLORIDE); FOAMS; BAST; FIBRES; **POLYURETHANE**; POLYACRYLATES; **FINISH** (SUBSTANCE ADDED); WOOL; SCOURED (CONDITION); COATINGS (SUBSTANCES); BORON; COTTON; VISCOSE RAYON; CELLULOSE; POLY (VINYL **ALCOHOL**); POLYAMIDE; POLYACRYLONITRILE; NYLON 6; POLYPROPYLENE; POLYESTER; LINEN; POLY (ETHYLENE GLYCOL TEREPHTHALATE); POLY (ETHYLENE ISOPHTHALATE); CERAMIC; BORON NITRIDE; METALLIC; METAL; ALUMINA; GLASS; SYNTHETIC; NYLON 66; NYLON 610; POLYIMIDE; POLYAMIDIMIDE; KYNOL (TN); FLAME RESISTANT (TYPE); HEAT RESISTANT (TYPE); PHENOL FORMALDEHYDE RESINS; NOMEX (TN); POLY (PHENYLENE PHTHALAMIDE); SULFON (TN); AROMATIC POLYAMIDE; KAPRON (TN); POLYIMIDAZOLE; POLYHYDRAZIDE; POLYBENZOXAZOLES; POLYBENZIMIDAZOLES; FILAMENTS; TWILLS; POLYFORMALDEHYDE; DACRON (TN); CELLULOSE TRIACETATE; CELLULOSE SECONDARY ACETATE; IGNITION; BURNING; LEGISLATION; USA; UK; SWITZERLAND; CANADA; EIRE; DENMARK; FRANCE; SPAIN; BELGIUM; WESTERN EUROPE; WEST GERMANY; STANDARDS; HYFIL (TN); CARBON; GRAFIL (TN); THORNEL (TN); MODMOR (TN); FLAME RESISTANCE AGENTS; PHOSPHORUS COMPOUNDS; HALOGEN COMPOUNDS; ZIRCONIUM COMPOUNDS; NITROGENOUS COMPOUNDS; TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM HYDROXIDE; TETRAKIS (HYDROXYMETHYL) PHOSPHONIUM CHLORIDE; TRIS (AZIRIDINYL) PHOSPHINE OXIDE; TRIMETHYLOL MELAMINE; THP AMIDE; THPC UREA; THPOH AMMONIA; THPC AMIDE; SPHERULITIC CRYSTALLIZATION; DAYLIGHT; GAMMA RADIATION; ULTRAVIOLET RADIATION

L36 ANSWER 51 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1975:581048 HCAPLUS

DN 83:181048

TI Pile fabric treating composition providing soil resistance

IN Schultz, William J.; Smith, Samuel

PA Minnesota Mining and Mfg. Co., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

IC D06M

NCL 252008750

CC 39-10 (Textiles)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 3896035	A	19750722	US 1973-346838	19730402
	US 3987227	A	19761019	US 1974-521295	19741106
PRAI	US 1973-346838		19730402		

AB Traffic-durable stain-repellent soil-resistant **finishes** for pile fabrics, e.g. carpets, consisted of a urethane adduct free of fluoroaliph. radicals and a urethane adduct contg. fluoroaliph. radicals, both adducts being water-insol., having major transition temps. >45.degree., and melting to flowable liqs. at <200.degree.. Thus, 554 parts N-ethylperfluorooctanesulfonamidoethanol [1691-99-2] in 337 parts methyl isobutyl ketone was distilled to remove water, cooled to 80.degree., and combined with 0.32 part dibutyltin dilaurate and 87 parts 2,4-tolylene **diisocyanate** [584-84-9] to yield the bisurethane adduct which was combined with water 489, fluoroaliph. surfactant 16, acetone 16, addnl. water 48, and **polyoxyethylene** sorbitan monooleate 16 parts to yield a carpet treating dispersion. A nonfluorinated urethane adduct was prepd. from methyl isobutyl ketone 79, dibutyltin dilaurate 0.017, polyarom. **diisocyanate** 154, and isopropyl alc. 60 g. Synthetic fiber pile carpets were prepped with the fluoroaliph. urethane adduct and then topcoated with combinations of the two adducts to give fabrics with improved oil repellency with no enhanced flammability.

ST soilproofing pile carpet; fluoroaliph urethane adduct soilproofing;

acrylic fiber carpet soilproofing; nylon fiber carpet soilproofing;  
polyester fiber carpet soilproofing

IT Oils  
RL: USES (Uses)  
(-proofing, of synthetic fiber pile carpets, by fluoroaliph. urethane adducts and urethane adducts)

IT Acrylic fibers  
Polyamide fibers  
Polyester fibers  
RL: USES (Uses)  
(soilproofing of pile carpets from, by fluoroaliph. urethane adducts and urethane adducts)

IT Carpets  
(soilproofing of synthetic pile, by fluoroaliph. urethane adducts and urethane adducts)

IT 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, reaction products with 2,4-tolylene diisocyanate  
Benzene, 2,4-diisocyanato-1-methyl-, reaction products with N-ethylperfluorooctanesulfonamideethanol  
RL: USES (Uses)  
(soilproofing agents, contg. urethane adducts, for synthetic fiber pile carpets)

L36 ANSWER 52 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
AN 1975:7602019 WTEXTILES  
TI Identification of textile materials  
SO Textile Institute, Manchester, 1975, (v) & 262 pages. Seventh edition, (1975)  
DT Journal; Book; Book; (Technical Information); General Review  
LA English  
AV BTG (Shirley Institute)  
CT FIBRE ANALYSIS; CHEMICAL ANALYSIS; LIGHT MICROSCOPY; SCANNING ELECTRON MICROSCOPY; FIBRE CROSS SECTIONS; CHEMICAL COMPOSITION; POLARIZED LIGHT; STAINING TESTING (FIBRE IDENTIFICATION); SOLUBILITY; SOLVENTS; BIREFRINGENCE; INFRARED SPECTRA; DIFFERENTIAL THERMAL ANALYSIS; GAS CHROMATOGRAPHY; REFRACTANCE; **FINISH** (SUBSTANCE ADDED); DENSITY; MELTING POINT; QUANTITATIVE ANALYSIS; WOOL; ANIMAL PROTEIN; SILK; COTTON; VEGETABLE CELLULOSE; ASBESTOS; NATURAL POLYMER; MAN MADE; SYNTHETIC; ELASTOMERS; GLASS; POLYACRYLONITRILE; MODACRYLIC; FLUOROCARBON; MODAL; REGENERATED CELLULOSE; VISCOSE RAYON; POLYAMIDE; POLYUREA; POLYESTER; POLYETHYLENE; **POLYURETHANE**; POLYPROPYLENE; CELLULOSE TRIACETATE; CELLULOSE SECONDARY ACETATE; POLYVINYL DERIVATIVES; POLY (VINYL **ALCOHOL**); FIBRES

L36 ANSWER 53 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
AN 1973:443623 HCAPLUS  
DN 79:43623  
TI Treating fibers and fabric with hybrid polymers  
IN Sherman, Patsy O.  
PA Minnesota Mining and Manufg. Co.  
SO U.S., 22 pp. Division of U.S. 3,574,791  
CODEN: USXXAM  
DT Patent  
LA English  
IC B44D  
NCL 117138800A  
CC 39-10 (**Textiles**)  
FAN.CNT 2  
PATENT NO.                      KIND      DATE                      APPLICATION NO.      DATE

PI	US 3728151	A	19730417	US 1970-57884	19700617
	US 3574791	A	19710413	US 1968-698016	19680115
PRAI	US 1967-614925		19670209		
	US 1968-698016		19680115		

AB Durable water resistance, oily stain resistance, and oily stain removal properties were achieved on resin-**finished** textiles by treatment with block polymers having oleophobic and hydrophobic properties in air and hydrophilic and oleophobic properties in aq. environments without interfering with the improvements produced by the resins. Thus, 2.5 g 2-[N-ethyl(perfluorooctyl)sulfonamido]ethyl methacrylate and 2.5 g tetraethylene glycol dimethacrylate-H<sub>2</sub>S prepolymer were polymd. to yield 2-[N-ethyl(perfluorooctyl)sulfonamido]ethyl methacrylate-hydrogen sulfide-tetraethylene glycol dimethacrylate block copolymer [40957-64-0] which was dissolved in methyl isobutyl ketone and padded on a cotton-polyester fabric which had been permanent press-**finished** with **dimethyloldihydroxyethyleneurea** to give a fabric with good stain release and repellency after 5 launderings. Numerous other block copolymers were synthesized and used.

ST soil repellent **finishing** textile; cotton polyester fiber oil proofing; hydrophilic polymer textile **finish**; hydrophobic polymer textile **finish**; oleophobic polymer textile **finish**

IT Oils

RL: USES (Uses)

(-proofing, of cellulosic textiles, by block polymers contg. reversible hydrophilic-hydrophobic and oleophobic groups)

IT Waterproofing

(of cellulosic textiles, by block polymers contg. reversible hydrophilic-hydrophobic and oleophobic groups)

IT Polyester fibers

RL: USES (Uses)

(water proofing of resin-**finished** cellulosic fibers and, with blocked polymers contg. reversible hydrophilic-hydrophobic and oleophobic groups)

IT Textiles

(water proofing of resin-**finished** cellulosic, with block polymers contg. reversible hydrophilic-hydrophobic and oleophobic moieties)

IT 2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymers with polyethers

Benzenesulfonyl chloride, reaction products with polyethers, polymers with ethylperfluorooctanesulfonamidoethyl methacrylate

Hydrogen sulfide (H<sub>2</sub>S), reaction products with polyethers, polymers with ethylperfluorooctanesulfonamidoethyl methacrylate

RL: USES (Uses)

(block, cellulosic textiles **finished** by, for improved soil release, soil repellency and waterproofing)

IT 2-Propenoic acid, 2-[[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with polyethers

2-Propenoic acid, 2-methyl-, oxybis(2,1-ethanediyl-oxy-2,1-ethanediyl) ester, homopolymer, mercapto group-terminated, polymer with N-methylperfluorooctanesulfonamidoethyl acrylate

RL: USES (Uses)

(block, cellulosic textiles treated by, for improved soil release, soil repellency and waterproofing)

IT 2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], reaction products with benzenesulfonyl chloride and

- sodium hydrosulfide, polymers with N-ethylperfluorooctanesulfonamidoethyl methacrylate
- Phenol, 4,4'-(1-methylethylidene)bis-, polymer with .alpha.-(phenylsulfonyl)-.omega.-[(phenylsulfonyl)oxy]poly(oxy-1,2-ethanediyl), reaction products with hydrogen sulfide, polymers with N-ethylperfluorooctanesulfonamidoethyl methacrylate
- Poly(oxy-1,2-ethanediyl), .alpha.-(phenylsulfonyl)-.omega.-[(phenylsulfonyl)oxy]-, polymer with 4,4'-(1-methylethylidene)bis[phenol], reaction products with hydrogen sulfide, polymers with N-ethylperfluorooctanesulfonamidoethyl methacrylate
- RL: USES (Uses)  
(blocks, cellulosic textiles **finished** by, for improved soil release, soil repellency and waterproofing)
- IT 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-, reaction products with polyethylene glycol and toluene **diisocyanate**
- 1-Octanesulfonamide, N,N'-(2-hydroxy-1,3-propanediyl)bis[1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-, reaction products with polyethylene glycol and toluene **diisocyanate**
- 2-Propenoic acid, 2(or 3)-hydroxypropyl ester, polymer with hydroxy terminated methylperfluorooctanesulfonamidoethyl acrylate polymer methacrylate
- 2-Propenoic acid, 2-[[heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, homopolymer, hydroxy terminated, methacrylate, polymers with acrylic compds.
- 2-Propenoic acid, 2-methyl-, hydroxypropyl ester, polymer with hydroxy terminated methylperfluorooctanesulfonamidoethyl acrylate polymer methacrylate
- 2-Propenoic acid, 2-methyl-, polymer with hydroxyterminated methylperfluorooctanesulfonamidoethyl acrylate polymer methacrylate
- Benzene, 1,3-**diisocyanatomethyl**-, reaction products with (methylfluorooctanesulfonamido)**alcohols** and polyethylene glycol
- Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, reaction products with (methylfluorooctanesulfonamido)**alcohols** and toluene diisocyanate
- RL: USES (Uses)  
(cellulosic textiles treated by, for improved soil release, soil repellency and waterproofing)
- IT 2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, polymer with ethenylbenzene, sulfonated
- Benzene, ethenyl-, polymer with 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl 2-methyl-2-propenoate, sulfonated
- Sodium sulfide (Na(HS)), reaction products with polyethers, polymers with ethylperfluorooctanesulfonamidoethyl methacrylate
- RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)
- IT 39420-50-3 39420-60-5 39420-65-0
- RL: USES (Uses)  
(block)
- IT 39421-18-6 39421-19-7 39421-20-0
- RL: USES (Uses)  
(block, cellulosic textiles **finished** by, for improved soil release, soil repellency and waterproofing)
- IT 39420-94-5
- RL: USES (Uses)  
(block, cellulosic textiles treated by, for improved soil release, soil repellency and waterproofing)
- IT 39421-21-1 39432-52-5 39432-53-6
- RL: USES (Uses)

(block, cellulosic textiles treated with, for improved soil release, soil repelancy and waterproofing)

IT 42458-53-7  
RL: USES (Uses)  
(block, textile **finished** by, for improved stain release, stain repelancy and waterproofing)

IT 40957-64-0 42378-57-4 42378-58-5 42378-59-6 42378-60-9  
42458-54-8 42458-55-9 42518-93-4  
RL: USES (Uses)  
(block, textiles **finished** by, for improved stain release, stain repelancy and waterproofing)

IT 39420-95-6 42458-56-0 42458-57-1  
RL: USES (Uses)  
(cellulosic textiles treated by, for improved soil release, soil repellency and waterproofing)

IT 42388-35-2P 42458-47-9P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

L36 ANSWER 54 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1973:406709 HCAPLUS

DN 79:6709

TI Fluorinated polyurethanes as soil-release **finishes** for textiles

IN Gresham, John Thomas

PA FMC Corp.

SO Ger. Offen., 46 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C08G

CC 39-10 (Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2245722	A1	19730405	DE 1972-2245722	19720918
	FR 2154551	A1	19730511	FR 1972-33557	19720921
	NL 7213018	A	19730329	NL 1972-13018	19720926
	IT 967894	A	19740311	IT 1972-29712	19720926
	BE 789363	A1	19730327	BE 1972-122485	19720927
	JP 48043096	A2	19730622	JP 1972-96267	19720927
	US 3872058	A	19750318	US 1974-432173	19740110
PRAI	US 1971-184267		19710927		

AB Polyols. (mol. wt. 60-2000), **diisocyanates**,  $RC_nH_{2n-a}(OH)XR_1(OH)_b$   
R = C4-16 perfluoroalkyl group, X = O or S, R1 = di- or trivalent satd. alkyl groups, n = 1-11, a = 0-1, b = 1-2, a + b = 1-2), and compd(s).  
selected from C1-18 alkyl **alc.**, **isocyanate** blocking agent, low mol. wt. diol or diamine chain extenders, and aminoalc., diol, or triol crosslinkers reacted together to give the title materials. Thus, a 1:3 (mole ratio) trimethylolpropane [77-99-6]-TDI [26471-62-5] adduct reacted with a mixt (OH equiv. 548) contg. (2-pefluorohexylethyl) (2-hydroxyethyl) sulfide [36097-00-4] 5, (2-perfluorooctylethyl) (2-hydroxyethyl) sulfide [34360-26-4] 80, 2-perfluorodecylethyl) (2-hydroxyethyl) sulfide [36097-05-9] 7, and (4-perfluorooctylbutyl) (2-hydroxyethyl) sulfide [36879-96-6] 5% in Chlorothene NU (I) to give an intermediate. This intermediate reacted with 2-butanone oxime [96-29-7] and 2-ethyl-1-hexanol [104-76-7] in I in the presence of Bu2Sn dilaurate to give a polyurethane soln. contg. 5.71% F. This polyurethane soln. was dild. with trichloroethylene to a F content of 0.15-0.75%, and a 50:50 cotton-polyester fabric was soaked in the dild. soln., dried, and used to give a sample that contained 0.11% F and had an oil-repellency value of 4

and a spray rating of 90 in AATCC tests 118-1966 and 22-1967, resp.  
 ST fluorinated polyurethane; soil release textile; hydroxymethylpropane  
 polyurethane; **fluorohydroxyalkyl** sulfide polyurethane;  
 polyurethane **finish** textile  
 IT Oils  
 RL: USES (Uses)  
 (-proofing, of textiles, by fluorine-contg. polyurethanes)  
 IT Textiles  
 (cotton-polyester, soil-release **finishes** for, fluorine-contg.  
 polyurethanes as)  
 IT Urethane polymers, uses and miscellaneous  
 RL: USES (Uses)  
 (fluorine-contg., oilproofing agent for textiles)  
 IT 9017-09-8 30228-06-9  
 RL: USES (Uses)  
 (fluoroalc.-modified, soil-release **finishing** agents for  
 cotton-polyester textiles)  
 IT 30228-08-1 42441-07-6  
 RL: USES (Uses)  
 (fluoroalc.-modified, soil-release **finishing** agents for  
 textiles)  
 IT 25211-74-9P 25211-75-0P 38550-45-7P 39420-25-2P 39420-27-4P  
 39420-29-6P 39420-31-0P 39420-35-4P 42269-09-0P 42269-10-3P  
 42269-12-5P 42269-14-7P 42269-16-9P 42269-17-0P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)  
 IT 355-43-1 423-62-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with (allyloxy)propanol)  
 IT 38550-45-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with Me mercaptan)  
 IT 507-63-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with allyloxy alcs.)  
 IT 34143-74-3 34451-26-8 34451-28-0 36879-93-3 42269-05-6  
 42269-07-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with chloropropanol)  
 IT 96-27-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with fluorinated alkyl iodides)  
 IT 627-30-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with fluorinated alkyl mercaptans)  
 IT 110-64-5 112-43-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with heptadecafluorodecanethiol)  
 IT 74-93-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with heptadecafluoriodoundecanol)  
 IT 2043-53-0 2043-54-1 2043-57-4 38565-62-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with mercaptopropanediol)  
 IT 43089-73-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with perfluoroalkyl iodides)  
 IT 111-45-5 123-34-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with perfluorooctyl iodide)



IT 60-24-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with polyfluoroalkyl iodides)

IT 2049-80-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with polyfluoroalkyl mercaptans)

IT 39420-26-3 42269-12-5 42269-23-8  
RL: USES (Uses)  
(urethane polymers from)

IT 25322-69-4  
RL: USES (Uses)  
(urethane polymers from, fluorine-contg.)

IT 39420-28-5  
RL: USES (Uses)  
(urethane polymers modified by, soil-release **finishes** from)

IT 107-18-6, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(with perfluorooctyl iodide)

L36 ANSWER 55 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
AN 1971:7105522 WTEXTILES  
TI **Finishing** additives for durable press knitted cotton fabric  
AU ANDREWS B.A.K.; FRICK J.G.; REID J.D.  
CS SRRL.  
SO Textile Chemist and Colorist, 1971, 3, No. 7, 166-169 (4 pages)., (1971)  
DT Journal; Article; (Technical Information); (new work)  
LA English  
AV BTG (Shirley Institute)  
CT CROSSLINKING AGENTS; DURABLE PRESS TREATMENTS; ABRASION RESISTANCE;  
LAUNDERABILITY; BURSTING STRENGTH; DIMENSIONAL STABILITY; SHRINKAGE;  
STRESS STRAIN CURVES; COTTON; KNITTED FABRICS; FABRICS; ADDITIVES  
(CHEMICAL); POLY (VINYL **ALCOHOL**); POLYETHOXY ETHERS;  
**POLYURETHANE**; POLYACRYLATES; DURABLE PRESS **FINISHES**

L36 ANSWER 56 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
AN 1971:7101990 WTEXTILES  
TI Polymer-treated cotton yarn improves durable press denims  
AU LOFTON J.T.; HARPER R.J.; GRAHAM C.O.; BLANCHARD E.J.  
CS SRRL.  
SO American Dyestuff Reporter, 1971, 60, No. 1, 21-26 (5 pages)., (1971)  
DT Journal; Article; (new work)  
LA English  
AV BTG (Shirley Institute)  
CT DURABLE PRESS; DURABLE PRESS **FINISHES**; DURABLE PRESS  
TREATMENTS; MECHANICAL PROPERTIES; FLEX ABRASION RESISTANCE; FIBRE  
STRENGTH; CREASE RECOVERY; COTTON; FABRICS; DENIMS; WOVEN FABRICS;  
CROSSLINKING; SIZING; SIZING AGENTS; RESINS; POLY (VINYL **ALCOHOL**  
); **POLYURETHANE**; POLYACRYLATES

L36 ANSWER 57 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
AN 1972:73682 HCAPLUS  
DN 76:73682  
TI Oil-repellent fabric-treating composition, and the treated fabric  
IN Peterson, Richard L.  
PA Minnesota Mining and Manufg. Co.  
SO U.S., 5 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC D06M

NCL 260029200  
 CC 39 (Textiles)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3503915	A	19700331	US 1967-665253	19670905
PRAI	US 1967-665253		19670905		
AB	<p>The stain resistance and oil-repellency of a durable-press water-washable fabric was improved by treatment with a compn. contg. a fluorinated oleophobic polymer with a limited hydrocarbon affinity and a water-insol., fluorine free, thermoplastic, hydrophilic polar org. polymer. The compn. had a contact angle with water of &lt;90.deg. during laundering. A cotton-polyester fabric was treated in aq. pad baths contg. <b>dimethyloldihydroxyethyleneurea</b>, Zn(NO<sub>3</sub>)<sub>2</sub>, poly(ethylene terephthalate) latex, and fluorinated compds. including N-ethylperfluorooctanesulfonamidoethyl alc. [1691-99-2]-tolylene <b>diisocyanate</b> [26471-62-5] reaction product (I), (N-ethylperfluorooctanesulfonamido)ethyl methacrylate-isoprene copolymer [30282-32-7], poly(1,1-dihydroperfluorooctyl methacrylate) [29014-57-1], and poly[(N-propylperfluorooctanesulfonamido)ethyl acrylate] [34229-38-4]. After curing, the fabrics showed acceptable laundering removal of a Mazola oil stain. The fluorinated polyurethane gave no visible stain retention.</p>				
ST	<p>polyurethane textile <b>finish</b>; fluorinated polyurethane <b>finish</b>; oil permeability; cotton polyester <b>finishing</b>; soil release <b>finish</b></p>				
IT	<p>Oils          RL: USES (Uses)          (-proofing, of cotton-polyester fabrics, by fluorinated oleophobic polymers and polar org. polymers)</p>				
IT	<p>Urethane polymers, uses and miscellaneous          RL: USES (Uses)          (fluorinated, oilproofing agents, for cotton-polyester fabrics)</p>				
IT	<p>Polyester fibers          RL: USES (Uses)          (oilproofing of cotton and, by fluorinated oleophobic polymers and polar org. polymers)</p>				
IT	<p>Textiles          (oilproofing of cotton-polyester, by fluorinated oleophobic polymers and polar org. polymers)</p>				
IT	<p>1-Octadecanamine, reaction products with bis(<b>phenylisocyanatomethyl</b>)phenyl <b>isocyanate</b> and Carbowax 350          1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, reaction products with dimethylaminoethanol and toluene <b>diisocyanate</b>          Benzene, 1,3-<b>diisocyanatomethyl</b>-, reaction products with dimethylaminoethanol and N-ethylperfluorooctanesulfonamidoethyl <b>alcohol</b>          Benzene, <b>isocyanatobis</b>[(<b>isocyanatophenyl</b>)methyl]-, reaction products with Carbowax 350 and octadecylamine          Benzene, <b>isocyanatomethyl</b>-, reaction products with polypropylene glycol          Ethanol, 2-(dimethylamino)-, reaction products with N-ethylperfluorooctanesulfonamidoethyl <b>alcohol</b> and toluene <b>diisocyanate</b>          Ethene, homopolymer, oxidized          Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-hydroxy-, reaction products with <b>isocyanates</b>          Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, reaction products with toluene <b>monoisocyanate</b></p>				

Propanol, oxybis-, reaction products with Carbowax and toluene  
**diisocyanate**

RL: USES (Uses)

(oilproofing agents, for cotton-polyester fabrics)

IT 9003-31-0 9010-98-4 9057-52-7 9057-91-4 24979-97-3 25034-96-2  
 25038-59-9, uses and miscellaneous 25085-37-4 25610-21-3 30282-36-1  
 RL: USES (Uses)

(oilproofing agents, for cotton-polyester fabrics)

IT 9057-77-6 29014-57-1 29403-93-8 29403-94-9 29403-95-0 29656-88-0  
 30282-32-7 30282-36-1 33381-50-9 35918-04-8

RL: USES (Uses)

(oilproofing agents, for cotton-polyester textiles)

L36 ANSWER 58 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1970:436496 HCAPLUS

DN 73:36496

TI Branched polyurethanes for hot sealing of textile structures

PA Farbenfabriken Bayer A.-G.

SO Fr. Demande, 15 pp.

CODEN: FRXXBL

DT Patent

LA French

IC C08G; B32B; C09J

CC 39 (Textiles)

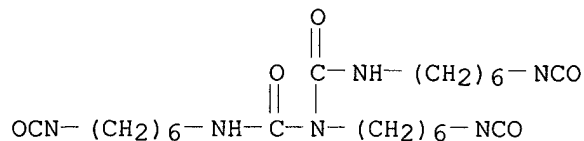
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2009683		19700206		
PRAI	DE		19680530		
	DE		19690411		
AB	Aliphatic polyurethanes prepd. from 1,6-hexane diisocyanate, 1,6-hexanediol, neopentyl glycol, and trimethylopropane are used as sizing agents for textiles having improved washing and dry cleaning stability. Tris(6-isocyanatohexyl)biuret may be added to the sizing compn. The sizing agents are applied while hot.				
ST	polyurethanes sealing textiles; textiles sealing polyurethanes; sealing textiles polyurethanes; washing stable sealants; dry cleaning stable sealants				
IT	Textiles				
	(sizes for, branched urethane polymers as)				
IT	Urethane polymers, uses and miscellaneous				
	RL: USES (Uses)				
	(sizes from branched, for textiles)				
IT	Sizes				
	(urethane branched polymers, for textiles)				
IT	28207-68-3 <b>28207-69-4</b>				
	RL: USES (Uses)				
	(sizes, for textiles)				
IT	<b>28207-69-4</b>				
	RL: USES (Uses)				
	(sizes, for textiles)				
RN	28207-69-4 HCAPLUS				
CN	Isocyanic acid, triester with 1,3,5-tris(6-hydroxyhexyl)biuret, polymer with 2,2-dimethyl-1,3-propanediol, hexamethylene isocyanate and 1,6-hexanediol (8CI) (CA INDEX NAME)				

CM 1

CRN 4035-89-6

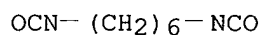
CMF C23 H38 N6 O5



CM 2

CRN 822-06-0

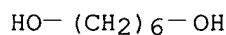
CMF C8 H12 N2 O2



CM 3

CRN 629-11-8

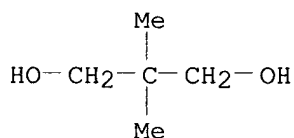
CMF C6 H14 O2



CM 4

CRN 126-30-7

CMF C5 H12 O2



L36 ANSWER 59 OF 63 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1970:44971 HCAPLUS  
 DN 72:44971  
 TI Shrinkproofing of cellulose products and wool  
 IN Wagner, George Melvin; Vullo, William J.  
 PA Hooker Chemical Corp.  
 SO Fr. Addn., 10 pp. Addn. to Fr. 1502368  
 CODEN: FAXXA3  
 DT Patent  
 LA French  
 IC C07C; D06M  
 CC 39 (Textiles)  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 93998	E	19690613	FR 1968-93998	19680227

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

- |            |   |          |                 |          |
|------------|---|----------|-----------------|----------|
| GB 1222994 | A | 19710217 | GB 1968-1222994 | 19680223 |
| BE 711355  | A | 19680827 | BE 1968-711355  | 19680227 |
| NL 6802754 | A | 19680828 | NL 1968-2754    | 19680227 |
- PRAI US 1967-619066 19670227
- AB Woolen fabric is treated with a urethane **polyisocyanate** prepd. using a compn. contg. a tertiary amine; the compn. is readily vulcanized and cured in the presence of water to render the fabric shrinkproof. Thus, 7.71 kg of a 4:1 mixt. of 2,4- and 2,6-tolylene **diisocyanate** was heated to 60-70.degree. under N in 67.02 kg trichloroethylene (I) and 59.31 kg of a tetrol polymer, obtained from mixts. of ethylene and propylene oxide treated with ethylenediamine, (Tetronic 901) with an OH index of 37.5, was added over 30 min at 65.degree.. The mixt. was heated at 80.degree. for 4 hr to give a compn. contg. 1.2% NCO groups with a viscosity of 82.9 cP at 25.degree.. A 50% soln. of this product in I (158.75 kg) was dild. with 2095.6 kg I to give a 3.5% solids foularding bath. Flannel wool (7681 m) was impregnated to 135% wet pickup in the bath and heated in steam. The fabric was treated with water at 30-5.degree. for 20 min to polymerize the finish and dyed with premetallized acid dyes. After drying, the material had a good hand and was evenly dyed. After 10 washings in a domestic machine the fabric showed 0-2.4% weft and 0.3-2.7% warp shrinkage. Other treating compns. were prepd. using a poly(oxypropylene)-diethylenetr i-amine condensate, a poly(**oxyethylene**)triethanolamie condensate, N-methylthylthiolamine, triethanolamine, tetrakis(2-hydroxyethyl)ethylenediamine, and N-(2-hydroxyethyl)dimethylamine. (p-OCNC6H4)2CH2 and OCN(CH2)6NCO were also used as **polyisocyanates**
- ST urethane **polyisocyanate** treatment wool; wool urethane **polyisocyanate** treatment; **polyisocyanate** treatment wool
- IT urethane; shrinkproofing wool; **finishing** wool
- IT **Alcohols**, polymers  
RL: USES (Uses)  
(polyhydric, tertiary amine-contg., urethane polymers, textile shrinkproofing with)
- IT Textiles  
(shrinkproofing of, with urethane polymers)
- IT Glycols, polyalkylene  
RL: USES (Uses)  
(tertiary amine-contg. urethane polymers from, for textile shrinkproofing)
- IT Amines, polymers  
RL: USES (Uses)  
(tertiary, polyhydric, urethane polymers contg., for shrinkproofing of textiles)
- IT Urethane polymers, uses and miscellaneous  
RL: USES (Uses)  
(textile shrinkproofing with)
- IT Ethanol, 2,2',2''-nitrilotri-  
RL: USES (Uses)  
(urethane polymers, for shrinkproofing of textiles)
- IT 1321-38-6  
RL: USES (Uses)  
(urethane polymers with tertiary amine-contg. polyhydric alcs., for shrinkproofing of textiles)
- L36 ANSWER 60 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.  
AN 1969:7000802 WTEXTILES  
TI Durable-press cotton fabrics woven from polymer sized yarns  
AU HARPER R.J.; LITTLE H.W.; BLANCHARD E.J.  
CS SURDD.

SO Proceedings of the Eighth Cotton Utilization Research Conference.  
Agricultural Research Service, United States Department of Agriculture,  
ARS 72-70 (1969), 123-138 (16 pages), (1969)  
DT Journal; Article; (new work)  
LA English  
CT DURABLE PRESS; DURABLE PRESS TREATMENTS; DURABLE PRESS **FINISHES**  
; SIZING; CROSSLINKING; WEAVING; MECHANICAL PROPERTIES; ABRASION  
RESISTANCE; HANDLE (TEXTILE); WEAVING EFFICIENCY; COTTON; FABRICS;  
POLYMERS; SIZING AGENTS; **POLYURETHANE**; POLY (VINYL  
**ALCOHOL**); POLYACRYLATES

L36 ANSWER 61 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1968:411386 HCAPLUS

DN 69:11386

TI Stable aqueous emulsions of compounds containing perfluoralkyl groups  
useful for textile treatment

IN Enders, Heinz; Deiner, Hans; Bernheim, Willy; Mosch, Franz; Stenzinger,  
Theodor

PA Chemische Fabrik Pfersee G.m.b.H.

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

NCL 260029200

CC 39 (**Textiles**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 3380943	A	19680430	US 1965-444065	19650330
PRAI	US 1965-444065		19650330		

AB The title emulsions are obtained by emulsifying in aq. org. solns. of reaction products of 1 mole polyisocyanate, 0.3-0.6 mole per isocyanate group perfluoroalkanesulfonamide, and 0.1-0.5 mole per isocyanate group of a compd. RX, where R is an aliphatic hydrocarbon residue of >12 carbon atoms and X is OH, carboxyl, carboxylic acid amide, or amino group. Thus, 57 g. N-ethyl-N-(.beta.-hydroxyethyl)perfluorooctanesulfonamide and 36.7 g. triphenylmethane 4,4',4"-**triisocyanate** was heated 0.5 hr. at 140-50.degree., 27 g. octadecanol was added, and the mixt. was heated for 0.5 hr. at 140-50.degree., the product was cooled, and a violet glasslike mass (I) was obtained. Also, 100 g. glycidyl ether from bisphenol A was dissolved in 160 ml. MeOH, then treated with 20 g. ethylenediamine, and heated 40 min. to 40-50.degree.. The reaction product was adjusted to pH 5 with 10% HOAc, and dild. with H2O to 1200 g. to give an emulsion (II). Then, 100 g. I, 70 g. acetone, and 163 g. perchloroethylene were pre-emulsified with 200 g. II, and after addn. of 445 g. H2O and 20 g. aq. 60% HOAc was treated in a high-pressure homogenizing machine to give a white, fine particle, storage-stable emulsion. Even after being stored for 6 months, this emulsion had no sepn. of the dispersed phase. Similarly, reaction products are prepd. from perfluorooctanesulfonamide with tolylene diisocyanate and octadecanol in xylene hexafluoride, or with triphenylmethane 4,4',4"-**triisocyanate** with stearic acid in o-dichlorobenzene, from N-ethyl-N-(.beta.-hydroxyethyl)perfluorooctanesulfonamide, from N-ethyl-N-(.beta.-hydroxyethyl)perfluorooctanesulfonamide with tris-(4-isocyanatophenyl)thiophosphate and octadecanol or triphenyl-methane 4,4',4"-**triisocyanate** and octadecylamine in xylene hexafluoride, from triphenylmethane 4,4',4"-**triisocyanate** with stearic acid and N-ethylperfluorooctanesulfonamide, or from N-propyl-N-(.beta.-hydroxyethyl)perfluorooctanesulfonamide, diphenylmethane p,p'-diisocyanate, and octadecanol. Similar emulsions were made from these reaction products with polymers obtained by treating

- II with MeOH and diethylenetriamine or HCHO, treating the glycidyl ether of ethylene glycol with MeOH and diethylenetriamine, II with MeOH and diethylenetriamine with addn. of HOAc, or with poly(vinyl alc.). The emulsions may be used to make textiles oil and water repellent.
- ST perfluoroalkyl compds emulsions; emulsions perfluoroalkyl compds; textiles oil water repellent; oilproofing textiles; water repellent textiles
- IT Waterproofing  
(of textiles, perfluoroalkane sulfonamide-polyisocyanate reaction product for)
- IT Textiles  
(oil- and water-repellent finishing of, perfluoroalkane sulfonamide-polyisocyanate reaction products for)
- IT Sulfonamides  
RL: USES (Uses)  
(perfluoroalkane, reaction products with polyisocyanates for textile oil- and waterproofing)
- IT Oils  
RL: USES (Uses)  
(proofing of textiles, perfluoroalkane sulfonamide-polyisocyanate reaction products for)
- IT Perfluoro compounds  
RL: USES (Uses)  
(with sulfonamides, reaction products with polyisocyanates, for textile oil- and waterproofing)
- IT Ethylenediamine  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)
- IT 1-Propanol, 2,3-epoxy-, ether with 4,4'-isopropylidenediphenol  
RL: USES (Uses)  
(reaction product with diethylenetriamine and ethylenediamine, emulsions with isocyanate-perfluorosulfonamide compds. for oil- and waterproofing textiles)
- IT Stearic acid  
RL: USES (Uses)  
(reaction products with N-ethylheptadecafluoro-N-(2-hydroxyethyl)-1-octanesulfonamide and methylidynetri-p-phenylene isocyanate, for oil- and waterproofing of textiles)
- IT Phenol, 4,4'-isopropylidenedi-, ether with 2,3-epoxy-1-propanol  
RL: USES (Uses)  
(reaction products with diethylenetriamine and with ethylenediamine emulsions with isocyanate-perfluorosulfonamide compds. for oil- and waterproofing of textiles)
- IT Isocyanic acid, polyesters  
RL: USES (Uses)  
(reaction products with perfluoroalkanesulfonamides for textile oil- and waterproofing)
- IT 111-40-0P **112-92-5P** 1321-38-6P 2224-15-9P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)
- IT 2422-91-5  
RL: USES (Uses)  
(reaction products with N-ethyl-N-(2-hydroxyethyl)heptadecafluoro-1-octanesulfonamide and octadecanol and stearic acid, for textile oil- and waterproofing)
- IT 124-30-1  
RL: USES (Uses)  
(reaction products with N-ethylheptadecafluoro-N-(2-hydroxyethyl)-1-octanesulfonamide and methylidynetri-p-phenylene isocyanate, for oil- and waterproofing of textiles)
- IT 27071-83-6

RL: USES (Uses)  
 (reaction products with N-ethylheptadecafluoro-N-(2-hydroxyethyl)-1-octanesulfonamide and octadecanol for oil- and waterproofing of textiles)

IT 101-68-8  
 RL: USES (Uses)  
 (reaction products with heptadecafluoro-N-(2-hydroxyethyl)-N-propyl-1-octanesulfonamide and 1-octadecanol for oil- and waterproofing of textiles)

IT 4236-15-1  
 RL: USES (Uses)  
 (reaction products with methylenedi-p-phenylene isocyanate and 1-octadecanol, for oil- and waterproofing of textiles)

IT 1691-99-2  
 RL: USES (Uses)  
 (reaction products with methylidynettri-p-phenylene isocyanate and octadecanol and octadecylamine, for textile oil- and waterproofing)

IT 4151-50-2  
 RL: USES (Uses)  
 (reaction products with methylidynettri-p-phenylene isocyanate and stearic acid, for oil- and waterproofing of textiles)

IT 754-91-6  
 RL: USES (Uses)  
 (reaction products with methylphenylene isocyanate and 1-octadecanol for oil- and waterproofing of textiles)

IT **112-92-5P**  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)

RN 112-92-5 HCAPLUS

CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

L36 ANSWER 62 OF 63 HCAPLUS COPYRIGHT 2003 ACS

AN 1965:3522 HCAPLUS

DN 62:3522

OREF 62:688g-h,689a-b

TI Water-resistant textiles

IN Enders, Heinz W.; Deiner, Hans; Kurz, Eugen W.

PA Chemische Fabrik Pfersee G.m.b.H.

SO 6 pp.

DT Patent

LA Unavailable

NCL 260029400

CC 47 (**Textiles**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 3148164		19640908	US	
PRAI	DE		19610421		

AB Textiles are made more H<sub>2</sub>O-resistant by treatment with an aq. dispersion of RNHCONR'<sub>2</sub>, in which R is a C<sub>10</sub>+ alkyl radical and R' is a C<sub>2</sub>-3 alkylene radical; or with a H<sub>2</sub>O-insol. precondensate (I) of an aminotriazine having .gtoreq.2 amino radicals with HCHO and a C<sub>1</sub>-5 monohydric alkanol. I is sol. in org. solvents and dil. solns. of AcOH and HCO<sub>2</sub>H. For each triazinyl radical there are .gtoreq.1 C<sub>10</sub>+ aliphatic radicals and .gtoreq.0.2 mole equiv. of basic amino groups of an alkanolamine of the



formula  $RR'R''N$ , in which R is H, C2-4 **hydroxyalkyl**, or C4-7 aminoalkyl; R' is C2-4 **hydroxyalkyl**; and R'' is H or a C2-4 **hydroxyalkyl** radical. Suitable aminotriazines are melamine and its derivs. Thus, 324 g. hexamethylolmelamine powder was dissolved in a mixt. of 2000 ml. MeOH and 100 ml. concd. HCl. Anhyd.  $Na_2CO_3$  (160 g.) was added to neutralize the mixt. and the resulting NaCl was filtered off. The filtrate was concd. in a vacuum evaporator to a 99% sirupy mixt. consisting essentially of hexakis(methoxymethyl)melamine (II). Stearic acid 130 and II 100 were heated at 180-200.degree. and 10-20 mm. Hg until the reaction product (III) had an acid value of 5-8. III (90 parts) and 15 parts triethanolamine were heated with stirring at 115-20.degree. and 10-20 mm. until the reaction mixt. (IV) was sol. in warm dil. AcOH. IV was dissolved in tetrachloroethylene and the soln. was added to an emulsion of 20 parts octadecyl **isocyanate** and 2 parts of the Na methyloleoyltauride. The mixt. was homogenized on a colloid mill. After addn. of 7% AcOH, the emulsion could be dild. with H<sub>2</sub>O to any desired concn. Rayon gabardine was treated in a bath contg. the above emulsion (30 g./l.) to give a wt. pick-up of 100%, dried at 110.degree., and cured at 130.degree. for 10 min. The treated material had reduced H<sub>2</sub>O absorption and a soft hand.

IT **Alcohols**

(amino, reaction products with aminotriazine and HCHO, urea alkyl alkylene deriv. emulsions stabilized by, for waterproofing textiles)

IT Waterproofing.

(of textiles, urea alkyl alkylene deriv. emulsions stabilized by aminotriazine-amino **alc.**-HCHO precondensates for)

IT Rayon

(waterproofing of, hexakis(methoxymethyl)melamine stearate emulsion for)

IT Textiles

(waterproofing or water-repellent **finishing** of, urea alkyl alkylene deriv. emulsions stabilized by aminotriazine-amino **alc.** -HCHO precondensates for)

IT 290-87-9, s-Triazine

(amino derivs., precondensates with amino **alcs.** and HCHO, urea alkyl alkylene deriv. emulsions stabilized by, for water proofing textiles)

IT 57-13-6, Urea

(N-alkyl N',N'-alkylene derivs., emulsions of, for waterproofing textiles)

L36 ANSWER 63 OF 63 WORLD TEXTILES COPYRIGHT 2003 Elsevier Science B.V.

AN 1980:8002807 WTEXTILES

TI **Polyurethanes** prepared from **alcohols** and hydrocarbon **polyisocyanates** used in textile wet treatment processes

IN Canela J.; Gerber H.

CS SANDOZ.

PI US 4186119

DT Journal; Patent; Patent

LA English

AV BTG (Shirley Institute)

CT CHEMICAL COMPOSITION; **POLYURETHANE**; **FINISH** (SUBSTANCE ADDED)